

Stack



Registered in
U.S. Pat. Office

ESTABLISHED 1848

COLMAN'S RURAL WORLD

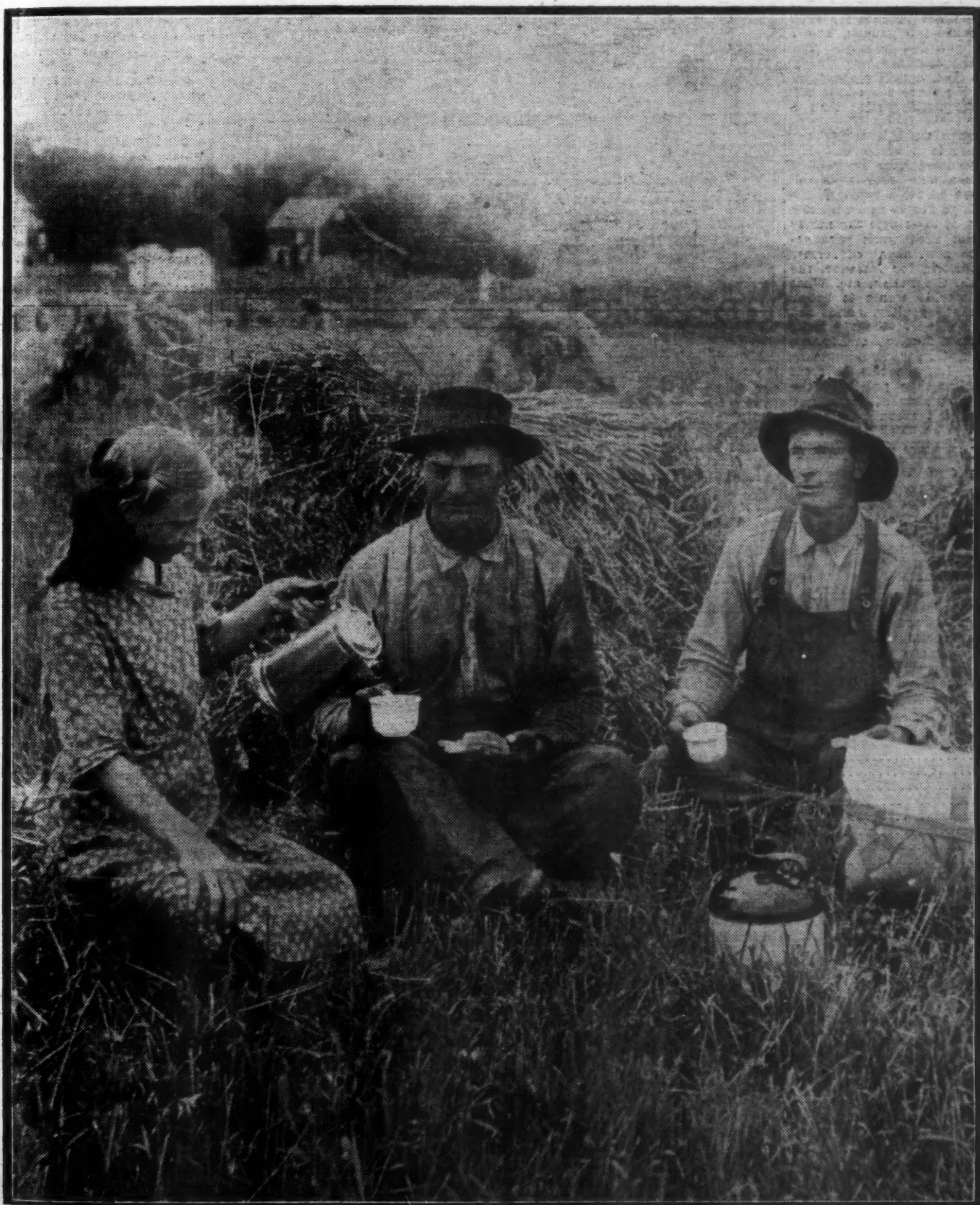
DEVOTED TO AGRICULTURE HORTICULTURE HORSES CATTLE SHEEP SWINE ETC.

OLDEST AGRICULTURAL AND LIVE STOCK JOURNAL IN THE MISSISSIPPI VALLEY

Sixty-Seventh Year.

ST. LOUIS, MO., JULY 23, 1914.

Volume LXVII. No. 30.



IN THE POULTRY YARD

THE WHITE FAVEROLLES.

The breed Faverolles derives its name from the village Faverolles, in the Houdan district, France. It was unknown before about 1885. For it is claimed large size, early maturity, great hardiness, great laying powers, and fine flesh. The French breeders consider them the best of their breeds for purely economic purposes. In that country they have an egg record that averages 150 to 180 eggs per year.

It is said the breed evolved by "economic selection for a mixture of Light Brahma and English Dorkings, with the native Houdan fowl."

March 25, at a meeting of the American White Faverolle Club in New York City, a standard was adopted which gives the weights for cock 9 pounds, cockerel 8 pounds, hen 7 pounds, and pullet 6 pounds. The adoption of the standard was simply with but one idea, a utility standard, but it seems there are some breeders who will have nothing else than a fancy bird.

Such a change would be a grievous mistake. Here is a breed that has much to recommend it to the poultry farmer. It is a wonderful layer and second to none as table poultry. To now fuss with points, to make a show bird out of it, is to cripple the utility qualities. Just such work gave severe blows to a number of former popular breeds, as, for instance, the Black Spanish, the Polish, etc. What the poultry world wants is better egg and market poultry, and not fancy birds. "Fine feathers" make fine birds from a fancier's standpoint, but it does not guarantee anything beyond that. Let the aim be meat and eggs rather than points to the comb, or the number of toes, and such matters that mean nothing in favor but apt to be much against the usefulness of this meritorious French breed.

As a fancy fowl Faverolles would have to take a back seat; as a utility breed it is already way to the front.—American Poultry Advocate.

WEIGHTS OF VARIOUS GRAINS AND SEEDS.

Many times one wishes to know the number of pounds to the bushel of the various grains and seeds. While these are easily obtainable yet at the time wanted they are usually not at hand. The following table of the standard weights may be of use for reference. There is a slight variation from these weights in different states, but for the most part are in general use.

Wheat	60
Oats	32-35
Barley	48-50
Rye	56
Rye (In Louisiana)	32
Corn, shelled	56
Corn, on cob	70-75
Clover, Red	60-64
Clover, White	50
Timothy	45
Blue Grass	14
Alfalfa	50
Herd or Red Top	14
Millet	45
Buckwheat	40-50
Beans, (usually)	60
Peas (usually)	60

FRED G. PEARSON,
Colorado Agricultural College.

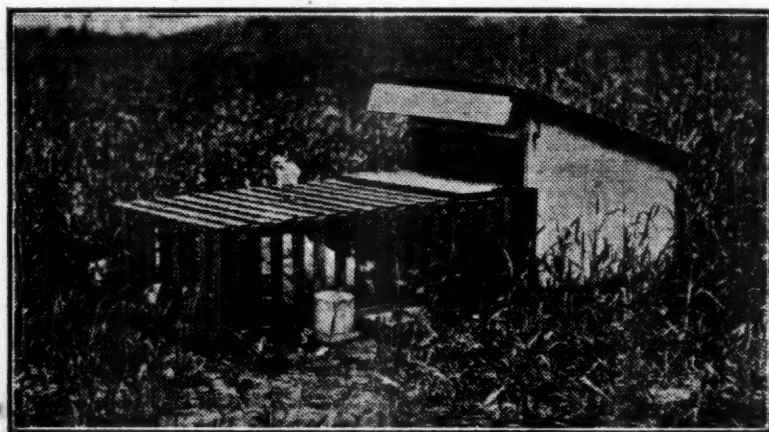
NEW BREED OF POULTRY.

Although the recognized breeds of poultry are almost numbered by the score, it seems that another breed, the Rhinelander, is in the field, a few having been brought to California by Mr. August Schwarz, 1214 Geary street, San Francisco, these being the first coming to America.

This breed is derived from the common fowl of a certain section of Germany, much like the Hamburg in many ways, but very much larger and having the great egg laying capacity of the former. The possibilities of these fowls were recognized some time ago and systematic efforts undertaken to



standardize the breed, a gentleman in Germany who is a friend of Mr. Schwarz, taking the lead in the work. It is the improved fowl that is given the name of Rhinelander. The fowls are large, being excellent for table use, as well as for egg production. The cock weighs on an average of seven



UP-TO-DATE CHICKEN HOUSE.

Type of house and runway for the Missouri Poultry Experiment Sta two feet square on ground by 20 in toward the back. The three sides and which is removable, is of prepared wall shows how roof is fastened to of roof keeps out rain from the wire closed, even in coldest weather. opening about six inches wide, which necessary. The bottom opening is way, which is hinged, and which house is open. The runway is one lath are nailed at spaces wide enough chickens. Plenty of disinfected straw changed frequently to keep the chick is moved frequently to give the chick prevents the mother hen from taking in the morning and provides an ade storms.

pounds, while the hens reach six pounds. An important feature for California is that the hens lay white eggs.

Mr. Schwarz sent to Europe for 20 hens and entered them in the international egg-laying contest being held at Mountain Grove, Mo., but unfortunately the vessel upon which they crossed the Atlantic met some severe weather and five of the hens died of exposure. The two pens he expected to enter at the contest were both short, which made it impossible for them to compete successfully, though the egg-laying capacity is shown by the fact that T. E. Quisenberry, superintendent of the contest, writes: "You may be interested to know that one of your hens is the leading hen in the egg-laying contest at the present time."

Mr. Schwarz is having hatched all fertile eggs secured from these pens, in order to secure a fair-sized flock, and will enter several pens in the egg-laying contest at the Panama-Pacific International Exposition next year, challenging the world to a friendly issue.

CAREFUL SYSTEM OF LINE BREEDING.

In building up a strain of pure-bred fowls that will reproduce the good qualities desired, it seems necessary to follow a careful system of line breeding, says V. R. McBride, superintendent of the poultry plant at the western Washington experiment station.

It is important in all matings that the male and female do not show the same defect. The longer this system

of breeding is followed the farther we are away from inbreeding and from the relationship of the original sire and dam.

It is necessary in line breeding that the chicks from each mating be given some mark for identification. For this purpose a toe punch, which may be obtained from poultry supply dealers, is very satisfactory. By punching a small hole in the web between the toes of the chick, and using a different mark for each mating, keeping a record of each mark, the chicks from each mating may be identified.

First Year—Pen No. 1 should be a mating of a choice male and female.

Pen No. 3—The original male mated to females from No. 1.

Third Year—Pen No. 4—Females from No. 2 mated to males from No. 3.

Pen No. 5—Males from No. 2 mated to females from No. 3.

Pen No. 6—Males from No. 2 mated to original female.

Pen No. 7—Females from No. 3 mated to original male.

Fourth Year—Pen No. 8—Males from No. 7 mated to females from No. 6.

Pen No. 9—Females from No. 7 mated to males from No. 6.

Pen No. 10—Males from No. 6 mated to females from No. 2.

Pen No. 11—Males from No. 5 mated to females from No. 6.

Pen No. 12—Females from No. 8 mated to males from No. 6.

Pen No. 13—Males from No. 7 mated to females from No. 3.

Fifth Year—Pen No. 14—Females from No. 9 mated to males from No. 10.

Pen No. 15—Females from No. 9 mated to males from No. 13.

Pen No. 16—Females from No. 11 mated to males from No. 12.

Pen No. 17—Males from No. 11 mated to females from No. 12.

Pen No. 18—Females from No. 14 mated to males from No. 12.

Any system of line breeding requires more care and attention than some breeders care to devote to the work. However, such a system as outlined above will prove profitable to those who desire to establish a strain of fowls possessing strong breed characteristic and the power to produce a large number of eggs.

It is important that the females be trapped in order that none but profitable producers be used for breeding purposes.

Chicks raised on old ground, or low swampy places are peculiarly liable to gapes. If it is not possible to put chicks on fresh ground, plenty of lime should be used to purify old yards and discourage the gape worm. Cleaning up old yards and cleaning and disinfecting houses and coops, and keeping clean everything the chicks come in contact with helps to keep away gapes—the plague that gives poultry raisers so much trouble every spring.

The cause of poor hatches is a much discussed question, which depends on a great variety of circumstances. A poor hatch is more apt to be due to the condition of the eggs previous to hatching than to incubation, although improper handling of either factor will produce the same result. When eggs fail to hatch, whether the breeding stock is kept under conditions which tend to produce strong, fertile germs in the eggs, if the eggs have been handled properly before incubation, and whether the conditions were right during incubation, as judged by the time of the hatch.

They may be of the same blood lines providing they are strong and vigorous in every way and are well matured.

Second Year—Pen No. 2—A male from No. 1 mated to the original female.

Let me send you a WITTE Engine, to earn its own cost while you pay for it.

GET your engine from an Engine Specialist, on any suitable reasonable terms, at a fair price. LOOK AT THESE NEW PRICES!

2 H-P, \$34.95; 4 H-P, \$49.75; 6 H-P, \$59.35; 8 H-P, \$79.69
12 H-P, \$119.90; 16 H-P, \$159.90; 22 H-P, \$209.65. Portable Engines Proportionally less.

Why pay two prices for any good engine, or take chances on a poor or an unknown engine, when the "WITTE" costs so little and saves you the risk?

You can pay more than my price, but you can't get better engine-value from anyone. That's what my thousands of customers say and they ought to know.

WITTE ENGINES, Kerosene, Distillate, Gasoline and Gas

60 DAYS FREE TRIAL. 5-YEAR WARRANTY. DIRECT FROM FACTORY TO USER.

Styles—Stationary, Skidded, Mounted and Special Savings. Thousands in use in all parts of the world. Standard for 27 years—almost ever since there have been any gasoline or oil engines.

In all those years the "WITTE" has proved its high-quality value at all kinds of work, in all parts of the world. It is today better than ever, while the price is lower. My manufacturing advantages make this possible. I am simply sharing my advantages with engine buyers. Let me write you more about it and post you on engine buying.

Send me just your name and address so I can send you my New Book with my latest and Best Offer by return mail.

Ed. H. Witte, Witte Iron Works Co.
2102 Oakland Avenue,
KANSAS CITY, MO.

Send for this FREE BOOK HOW TO JUDGE AN ENGINE

CREAM of the DAIRY NEWS

GOVERNMENT ASSISTANCE.

Brief Review of How the Canadian Government Helps Dairying and Creameries.

Comparatively few people being aware of the magnitude of the dairy industry in Canada, or of the nature of government aid, it may be interesting to note the principal activities of each province in assisting dairy farmers, with their total of more than 2,500,000 dairy cows and an output of over \$120,000,000 worth annually of dairy products, says Farm and Dairy.

The Ontario department of agriculture operates the dairy school at Kingston, provides for general dairy instruction work and co-operates with two dairymen's associations. The 34 dairy instructors assist cheese and butter makers at their factories in maintaining a uniformly high standard of quality, besides devoting some time to the supervision of sanitary production of milk. Besides factory and creamery meetings, a series of district dairy meetings is held, while through the regular farmers' institute meetings a great deal of attention is paid to dairy topic. In the short courses in stock judging considerable prominence is given to dairy cattle. The work of the dairy department of the Guelph Agricultural College is so well known that a bare reference to it sets one's mind tingling with its strength and activity. Nearly \$80,000 is expended on dairying by this province.

Dairy Education in Quebec.

In Quebec the St. Hyacinthe dairy school has stood as a famous educational lighthouse for many years. The provincial official laboratory and a 50-acre dairy farm are operated in connection with the school, and besides the regular courses, attended by 658 students, special provision is made for furnishing and systematizing the work of the 74 syndicate instructors. The new co-operative society of makers has sold almost \$1,500,000 worth of butter and cheese. The expenditure by this province is about \$72,000.

Nova Scotia is chiefly assisting creameries to cover larger territories and to break new ground. Seven new creameries have been built in the last two years. One is making 88 tons of butter. The creameries conduct a dairy herd competition, and the 210 agricultural societies are encouraged to pay great attention to milk records in purchasing stock bulls. The recently appointed dairy superintendent already finds the need of two or more assistants. The direct expenditure upon dairying, besides the strong emphasis placed on dairying in the Truro Agricultural College, will probably be \$10,000 in 1914.

In New Brunswick there is a provincial expenditure of \$8,000 for dairying. The dairy school at Sussex is being enlarged and the creamery business is being more centralized through many of the small establishments having closed.

In Prince Edward Island special attention is given to dairy work by the two live stock experts. There is a provincial dairy instructor, and a dairy breeders' association, while the secretary for agriculture is a well-known dairy enthusiast in his lecture work. The expenditure is about \$1,500.

Inspection and Instruction.

In Manitoba the expenditure for dairy purposes is \$13,000. Besides the regular dairy work at the agricultural college at Winnipeg, the department provides for inspection and instruction at creameries and cheese factories, makes liberal provision for cow testing, and does valuable pioneer work in outlying districts, where a large proportion of the people is of foreign extraction. Not the least valuable feature of the general work is the special dairy car on better farming special trains.

The dairy appropriation in Alberta is \$12,000. The government markets butter for any creamery that wishes to take advantage of the service, and as this includes an educational butter scoring contest, much valuable work is



done. Probably the most important feature here is the grading of cream. Besides the work of the dairy instructors, judges at exhibitions and speakers on dairy topics at meetings, the department takes charge of dairy instruction work at short course schools. Three new schools of agriculture have been recently been established.

Progress in Saskatchewan.

In Saskatchewan the grading of cream, as in Alberta, is one of the finest features of the department's work. As a continuation of that plan it is contemplated appointing an offi-

direct aid in dairying is considerably over \$407,000.

DAIRY NOTES.

Grain in small amounts may be fed after the calf is two weeks old. A good mixture is five parts of whole oats, three parts bran, one part corn meal, and one part oil meal. It should be given dry in order to compel thorough mastication. When fed in this manner, immediately after the milk, it also helps to prevent ear sucking.

The money-making dairyman with plenty of experience always feeds some grain while the cows are on pasture. While in the flush pasture the grain is reduced and as the grass gets older, harder and more unpalatable the concentrated ration is increased. The dairy cow is quite comparable to the steam engine and you get the best and most profitable results only if you keep up a steady pressure of steam—reserve energy and tissue. The



A CONCRETE WELL.

cial grader, who will examine a package of butter from every churning at each creamery throughout the season. There is a vote of \$275,000 for advances on butter, which is recouped to the department from sales. In connection with the commercial work undertaken by the dairy commissioner, a regular business is conducted in Regina, handling ice cream, buttermilk, sweet milk and cream. This gives a very strong working point in developing the industry, as the farmers are paid everything over cost of operation. They are now receiving (November, 1913) 60 cents per pound of fat for sweet milk f. o. b. shipping point, with a maximum limit of \$3 a cwt. The basis of the work is direct supervision and operative creameries. Two instructors work chiefly among those patrons who supply only second grade cream, thus getting at the seat of trouble. For two or three months in winter, and in conjunction with the Saskatoon College of Agriculture, a series of institute meetings, with a special dairy car, it seems to be working out exceedingly well, and is becoming more popular with the farmers as time goes on.

With a considerable additional amount in immediate prospect, the expenditure by the dominion government, as voted through the experimental farms, live stock and dairy branches, may be put at about \$190,000.

The dairy division conducts two experiment stations, promotes cow testing, assists and supervises transportation of dairy produce and assists cold storage at factories. The live stock branch provides for distribution of pure bred sires, and keeps official records of milk production of pure breeds. Through the comprehensive system of the experimental farms a vast amount of information as to feeds and breeds of dairy cattle under varying conditions is made available. All branches unite in holding meetings for the advancement of dairying all over the dominion, besides issuing numerous articles and bulletins for dairy farmers.

In addition to the special votes in Alberta and Saskatchewan of \$475,000 simply for advance payments on general creamery work, the combined total government cash expenditure in

concentrate ration does this.

The amount of silage and cottonseed meal that should be fed when the cows are on grass depends upon the character of the grass, whether it supplies considerable feed or not, and the amount of milk the animal is giving. With good pasture little grain is required to produce a maximum flow of milk and cows giving a reasonable amount would not need as much, if any, grain. As to silage, the cow may be fed all she will consume of it.

There is not only a large difference in the productive capacity of different herds, but even a greater difference in the production of individuals in the same herd. One cow will produce from 90 cents to \$1 worth of milk for each \$1 worth of grain, pasture and roughage, while another will practically consume the same amount and return from \$1.50 to \$2 worth of milk or butter, and in some cases even more. Some of the profits from a good cow must be used to pay for the losses on the poor ones, thus reducing the profit on each cow very considerably. It is this great difference in productive power of different herds, and still more important in different cows in the same herd, that makes it so important for the owner to have a definite knowledge of what his cows are doing.

The Montana experiment station experts in a bulletin describe the use of carbolic acid as a treatment for contagious abortion. The conclusions of the bulletin are as follows: Carbolic acid, either fed in solution or injected hypodermically, seems to be a specific against contagious abortion. Cows, as a rule, will eat with apparent relish as much as 750 cubic centimeters of a 4 per cent solution of carbolic acid in feed daily. The hypodermic injection as a treatment in an affected herd involves less labor than feeding. In cases of impending abortion carbolic acid may be injected in sufficient quantity to cause staggering gait and dilation of the pupil of the eye, when it should be withheld for from 10 to 15 hours and repeated with no apparent unsatisfactory after effects.

A MATTER OF GRAMMAR.

Teacher—"Yes, Bessie, the old owl always says 'To whoo! To whoo!'"
Bessie Boston—"Gracious, what an ungrammatical owl. He should say 'to whom.'"

\$3.75 SUIT NO EXTRA CHARGES

Made to measure in latest style. Not \$3.75, not even \$1, not even one cent cost to you under our easy conditions. No Extra Charge for fancy swell styles, extra big, extreme peg-tops, pearl buttons, fancy belt loops, no extra charge for anything, all free. Before you take another order, before you buy a suit or pants, get our samples and new offer. Write and get "Good My Your Offer" the big, new different tailoring deal. Costs nothing and no extra charges. KNICKERDOCKER TAILORING CO. Dept. 151 Chicago, Ill.

EATS AND DRINKS, BUT CAN'T SUCK

No prongs to hurt animals. Weans every time. Sample Cooley Weaner (free for 30 days) after which time you may return weaner or remit retail price, which is 50c.

COOLEY MFG. CO.,

551 W. MONROE ST., CHICAGO, ILL.



5,918,098
gallons Polarine sold last year
1,536,232 gallons more than in 1912

These figures form indisputable evidence of POLARINE'S lubricating efficiency. For all makes and types of motor cars, motor trucks, motorcycles and motor boats. Maintains the correct lubricating body at any motor speed or temperature.

Polarine

POLARINE remains liquid at zero. POLARINE differs from all other motor oils, in that it lubricates perfectly at extremes of temperature.

STANDARD OIL COMPANY
(AN INDIANA CORPORATION)
Makers of Lubricating Oils for Locomotives, Engineering and Industrial Works of the World (216)



Cattle

GOVERNMENT SUPERVISION OVER IMPORTATION OF LIVE STOCK.

In case you are a breeder of live stock and desire to import a number of animals for breeding purposes or possibly a purebred bull, boar or ram for the improvement of your herd or flock, it will be well to know that the federal government maintains a strict supervision over the entry of such animals into this country. The same close scrutiny is exercised over deer, goats or other pet animals, which foreign travelers sometimes wish to bring home as pets or as mementos of their travels.

In either case it will be advisable to defer making a purchase or engaging space for the animals on a steamship until you have ascertained just what requirements govern importations of such animals.

By act of congress, the secretary of agriculture is given authority to make such regulations and take such measures as he may deem proper to prevent the introduction or dissemination of any contagious, infectious or communicable disease of animals from a foreign country into the United States.

Under such authority, regulations of the Department of Agriculture require that any person contemplating the importation of cattle, sheep, and other ruminants, and swine, from any part of the world except North America, must first obtain from the secretary of agriculture two permits. One of these permits upon presentation to the American consul at the port of shipment will entitle the specified animals to a clearance; the other will assure, subject to inspection, their reception and entry, subject to observation in quarantine, at the port of entry on the date prescribed for their arrival or at any time during three weeks immediately following. This leeway allows for any unavoidable delay, through bad weather or other cause, in the steamer's schedule.

Three animal quarantine stations are provided on the Atlantic seaboard near the ports of Boston, New York and Baltimore for the detention of imported stock. The animals included in this regulation are cattle, sheep, goats, and other ruminants, swine, and collie, shepherd or sheep dogs. All animals from parts of the world other than North America are subject to this quarantine regulation. If no disease develops while the animals are detained at the quarantine station the owner is permitted to ship them to their ultimate destination in this country.

All animals of the classes named and which are subject to both inspection and quarantine must be entered through these ports.

Cattle from Great Britain, Ireland, and the Channel Islands are held in quarantine for a period of 30 days. If from other countries, except those of North America, the quarantine period is 90 days counting from date of shipment. Sheep and swine from any part of the world, except North America, are subject to a quarantine of 15 days.

The Department of Agriculture receives periodically official reports from various foreign countries concerning conditions as regards existence of certain communicable diseases of live stock. These enable the secretary of agriculture to determine countries from which certain animals can not be imported without danger to the live stock of the United States. No permits are granted for importations from such countries. For instance, owing to prevalence of foot-and-mouth disease and other communicable diseases in countries of the Old World and South America, importations of cattle, sheep, other ruminants and swine have for several years been forbidden from countries other than Great Britain and North America. This work is aimed to exclude communicable diseases, a number of which are unknown in this country, any of which, if introduced, would result in great loss to our live stock industry.

Persons interested may obtain the latest regulations (B. A. L. Order 209,

effective July 1, 1914), on application to the chief of the Bureau of Animal Industry, Department of Agriculture, Washington, D. C.

LIVE STOCK PRICES.

The level of prices paid to producers of the United States for meat animals decreased 1 per cent during the month from May 15 to June 15; this compares with an increase of 1.6 per cent in the price level from May 15 to June 15 last year, a decrease of 2 per cent two years ago, a decrease of 1.7 per cent three years ago, and a decrease of 1.1 per cent four years ago, from May 15 to June 15.

In the six months, from December 15 to June 15, the level of prices for meat animals advanced 5.4 per cent; this compares with an advance of 12 per cent during like period a year ago, an advance of 16.8 per cent two years ago, and decline of 12.3 per cent three years ago, from December 15 to June 15.

On June 15 the average (weighted) price of meat animals—hogs, cattle, sheep and chickens—was \$7.22 per 100 pounds, compared with \$7.19 on June 15 a year ago, \$6.27 two years ago, \$5.45 three years ago and \$7.29 four years ago.

THE WOODEN SILO.

While a concrete or rock silo is of course far better than a wooden one, the latter has some advantages which should be given consideration. I recently visited a large dairy where they have wooden silos 37 feet high and about 20 feet in diameter at the bottom. Any way, they both together



WHAT EVERY FARMER NEEDS.

er hold 350 tons. The silos were built, I think, about a year or 18 months ago, and are therefore practically new.

But this dairy was established some five years before by a man who had had no previous experience in dairying, and the site selected was near a large creek with low banks and much low, flat bottom land on both sides of the creek; very rich land, but very moist, and so the grazing pasture is soft and boggy in wet weather, and during very heavy rains the creek overflows this pasture, and the water almost comes in to the cow barns. There have been stormy, rainy nights on this dairy farm when the owner and his men have had to stay up all night through fear of losing their fine Jerseys, Holsteins and Guernseys—all because the dairy was established by an inexperienced man too near the creek.

This mistake is to be rectified some time this year, before silage cutting season next fall, by moving to a higher site on the other side of the creek, 300 or 400 yards away from the present one, and it will be quite a serious undertaking to move the two silos, the two big dairy barns, the bottling and machinery house and other equipment. But what trouble it would be to move concrete or rock silos as large as these! It will be difficult enough to move the wooden ones.

They are fine, large silos, well made and well hooped with steel rods, and heavily painted with red paint, and perhaps treated with some kind of oil on the inside. The plank, staves or timbers are thick and heavily tongued and grooved, so it would seem that but little moisture can evaporate through such material when heavily painted. I feel sure the cost was very much below what the cost of concrete or rock silos this

large would have been. I am not sure as to the kind of wood used, but it is probably either spruce or cypress. I don't think it is yellow pine, but even yellow pine this thick and this heavily painted should last perhaps 25 years.

If made of cypress it is impossible to say how long they might last. Certainly they might easily last a hundred years, barring fire, tornadoes and the like, for thin cypress shingles have been known to resist decay this long. There are old colonial houses in the eastern states more than a hundred years old, covered with cypress shingles—houses which have never been recovered since they were built, and the roofs are still good.

It is true a wooden silo is far more liable to damage by fire than a concrete or rock one, but there are earthen paints or paints mixed with dead oils which not only preserve wood from damage by water, but also make it less combustible than untreated wood, while ordinary mixed paint renders wood much more inflammable.

So no farmer should hesitate to build a wooden silo if he doesn't feel able to build with concrete or rock. I know dozens of farmer swith a few good milk cows whom it would pay well to build a good spruce or cypress silo, but they hesitate to build because they don't feel able to build a concrete one. They are holding back from the undertaking on account of the expense of building a concrete silo, and thus hurting the dairy business and limiting the demand for dairy cattle.

A wooden silo should be painted with some non-inflammable paint. It should be at a distance from any



other building, so as to be in as little danger as possible from fire. It should also be of large diameter rather than high, in order to decrease the danger of lightning striking it. The silage should be cut in small lengths, say one-fourth inch, so as to lie in as compact a mass as possible. In this way the silo will hold more, as the air spaces in the silage will be smaller.

FATTENING RATIONS.

In experiments carried on at the Indiana station with fattening lambs from the western range, it was found that the most profitable rations were those in which shelled corn, clover hay and corn silage were fed. When no silage was fed, the rate of gain was higher than when silage was added to the other feeds. Silage as the only roughage, produced a more economical gain, but not as rapid a gain as when clover hay was also fed.

The finish of the lambs fed on silage alone was not so good as that when both roughages were included in the ration. Oats were found to be too expensive to be used as a partial substitute for corn. Cottonseed meal increased the rate of gain, but did not in all cases add to the finish of the lambs, while it always added to the cost of the gains. Lambs kept in a barn made as rapid and economical gains as those in an open shed, but did not finish or sell as well.

SHEEP ON PLOWED LAND.

Keeping the sheep upon crops sown upon plowed land prevents parasitic infection. Such practice furnishes the greatest amount of feed from each acre and the kind and variety of food upon which sheep thrive best. Plowing the land prevents danger from stomach worm eggs dropped

Take This Suit

Made to your measure in latest style at our special inside price to interest you, a price so low it will surprise you, a saving of \$10.00, a perfect fit and latest style, all guaranteed or money refunded. Look over our agents outfit of wonderful samples and styles and make big money in your spare time taking orders for tailoring, see if you would like to be our regular agent and have a business of your own. For full explanation, all information, our surprising offer, book of samples and styles, all free, write a postal or letter and say, "Send me your offer," and get everything by return mail. No money or experience needed. Write now.

BANNER TAILORING CO.
Dept. 835, CHICAGO



YOU CAN PUT A BONITA FARM SILO

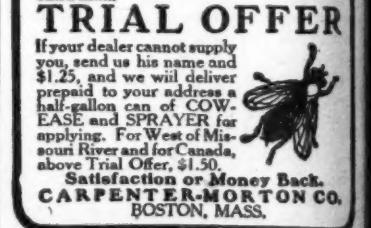
ON YOUR FARM FOR ONE-THIRD THE COST
Tested four years and fully guaranteed. Act promptly.

Bonita Farm, Raymore, Mo.

Cow-Ease

Prevents Ticks. **KEEPS FLIES OFF**
Cattle and Horses
and allows cows to feed in peace, making More Milk and More Money for you. A clean, harmless liquid preparation, applied with a sprayer. Keeps cows in good condition, and saves five times its cost in extra milk.

TRIAL OFFER
If your dealer cannot supply you, send us his name and \$1.25, and we will deliver prepaid to your address a half-gallon can of COW-EASE and SPRAYER for applying. For West of Missouri River and for Canada, above Trial Offer, \$1.50. Satisfaction or Money Back. **CARPENTER-MORTON CO.** BOSTON, MASS.



upon it. In warm weather the flock should be moved to fresh ground every ten days or two weeks to prevent infection of lambs by larvae from eggs dropped by the ewes. If lambs are by themselves, the time between changes may be longer, but in most forage crop rotations changes will need to be made every two or three weeks.

Fall-sown rye, spring oats and vetches or peas, rape, cowpeas, soybeans, crimson or Japan clover planted at proper intervals, will furnish fresh pasturage at times desired. Some of the land may be used twice in a year, as by having one planting of rape upon the rye ground.

The cultivation of the land destroys all infection from previous pasturing. Under such a system of cropping and grazing the land will improve, as the manurial value of the crops is practically all left upon the land and is evenly distributed.

THE AUTO-FEDAN HAY PRESS.

We respectfully call the attention of our readers—and especially those contemplating buying a hay press—to the ad on another page of the Auto-Fedan Hay Press Co., 1553 West 12th St., Kansas City, Mo.

There are so many hay presses on the market today and so many manufacturers laying claims to the best that the farmer who has had little experience with them becomes confused. As in other lines there must be a leader among hay presses—one that represents perfection. Two men can successfully and easily operate the Auto-Fedan and do more than three men with any other press on the market. With an Auto-Fedan the farmer can do away with an expensive stacker and an extra handling of the hay. It has a sweep 11 feet long and the same length crank-arm as most of the other presses, which gives more power. Intending purchasers should send for booklet describing this wonderful press before buying any other. Address Auto-Fedan Hay Press Co., 1553 West 12th St., Kansas City, Mo.

Horticulture

PLANT OR SOW PEAS OR SOY BEANS ON YOUR STUBBLE LAND.

The following advice from Colonel Exall, relative to restoration of the lands upon which small grain crops have been grown through the planting of soil-building legumes was given to the press several years ago. It is especially timely just now and the congress urges the farmers and asks the farmers' friends to urge that this advice be followed wherever possible.

The small grain crop of the state is now being harvested. If the land is allowed to lie idle it will very soon be covered with weeds that will go to seed and greatly increase this nuisance next year. If it has no crop on it with roots to protect and hold the soil together, and the season is excessively wet, it will waste from washing and thus lose a large amount of its soluble plant food. If the ground is dry and hard, the rain that should sink in would run off and leave the ground in bad condition for fall plowing.

Practically all of these troubles can be avoided and the fertility of the land greatly increased by disking it thoroughly, if it is loose enough to prepare a good seed bed in this way, and if not, by plowing and harrowing it just as quickly as possible after the crop is removed, and drilling from a peck to a half bushel of peas or soy beans to the acre.

The peas will grow if the soil is properly prepared and make splendid pasture for cattle or hogs in the early fall, and hay if you care to cut it, and a very profitable crop to turn under as green manure to add to the humus, pliability and fertility of the soil.

Peas and beans being leguminous plants, vegetable bacteria form their nodules, or tiny homes, upon the roots and increase and multiply under favorable conditions, at a fabulous rate. It has been estimated that these vegetable animals, as it were, double themselves every 20 minutes, that is, they mature in that time and separate into two individuals, each of which ripens, as it were, in the next 20 minutes and divides again into two, both going to housekeeping for themselves, and so on, in geometrical ratio; where there was one a week ago there are a billion now. If the soil is sweet, that is, does not lack lime, there seems to be hardly any end to the increasing powers of these little entities. Their special value is in the fact that they bring nitrogen from the air into the soil and rapidly transforms it into nitrates suitable for plant food.

It has been estimated that where conditions are favorable and the soil has been thoroughly inoculated with bacteria from growing peas, beans, alfalfa, or some other leguminous crop, that the nitrogen brought into the land annually from this source could not be purchased for less than \$20. or \$30 per acre. As nitrogen is absolutely essential to plant growth and is one of the most expensive of the mineral plant foods, it should be clear to every one that it is infinitely more profitable to grow leguminous cover crops than other crops of the same weight that return just as much humus to the soil but do not draw nitrogen from the atmosphere.

Plant peas and beans on your stubble land and plant them now.—Texas Industrial Congress.

FRUIT NOTES.

Editor Rural World: In answer to the following questions, I will say: Strawberries, if enough rain to make young plants root three to four inches long by the last of July, if planted then will make a fair crop next year. Fall bearing strawberries, come and see mine in August and September and judge for yourself.

Raspberries and blackberries should be topped. Cut off tops about one-fourth of this year's growth; the canes will throw out side branches, which will increase the yield about one-fourth. To grow raspberry plants, the Cap varieties, when the ends present a dark snake color, lower them and bury in the ground about two inches, thus they will grow plants. Cut off the parent cane and they are ready for

planting. The Cap variety of raspberries should be planted in the spring when the plants are about one inch high. Best time to set blackberries, dueberries and red raspberries is late fall or early spring. I tested eight varieties of the red sorts of raspberries, the kind that grow from sucker like the blackberry, but as yet have found none profitable for our soil and climate. The best varieties of the Cap sorts are Kansas and Sentinel.

Fruit trees that grow fast and don't bear, prune in July, cutting out limbs in July checks the growth and destroys the forming and developing fruit buds for the next year's crop.

Dear Subscriber, please lend this paper to a neighbor. Often I am too busy to answer questions.

JACOB FAITH.

SUMMER FOLLOWING.

That summer following pays in Northwestern Kansas, has been demonstrated in the region northwest of McDonald, according to information

When a boy, the first money I could call my own I spent for flowers and fruit trees.

JACOB FAITH.

GARDEN HELPS.

Remember the tempestuous storms that visit us in July and August and stake all tall plants that are liable to be injured by heavy winds. Bamboo canes are most convenient to use, and enough six-foot canes (which come in bundles) can be purchased to last several years. They can be cut any length desired as they are used.

Cut back the blooming stalks of the delphiniums and hollyhocks after the flowers fade, dig a little bone meal down about their roots, and enjoy a second crop of flowers.

Keep the faded flowers carefully picked off the plants to prevent seed pods from forming. This will not only give you larger flowers but also a longer period of bloom.

Sow pansy seed now for early blooming plants next spring.

July is a good month to visit our

bloomers and those plants that send up later blooming stalks.

July is the time to study our own gardens with a view of improving them another year. Have we made proper provision for succession of bloom? Would any of the flowers have done better in another spot in the garden? Have we grown the very best variety of each flower? Enter suggestions for yourself in your garden note book, otherwise you'll forget half of them before another year.

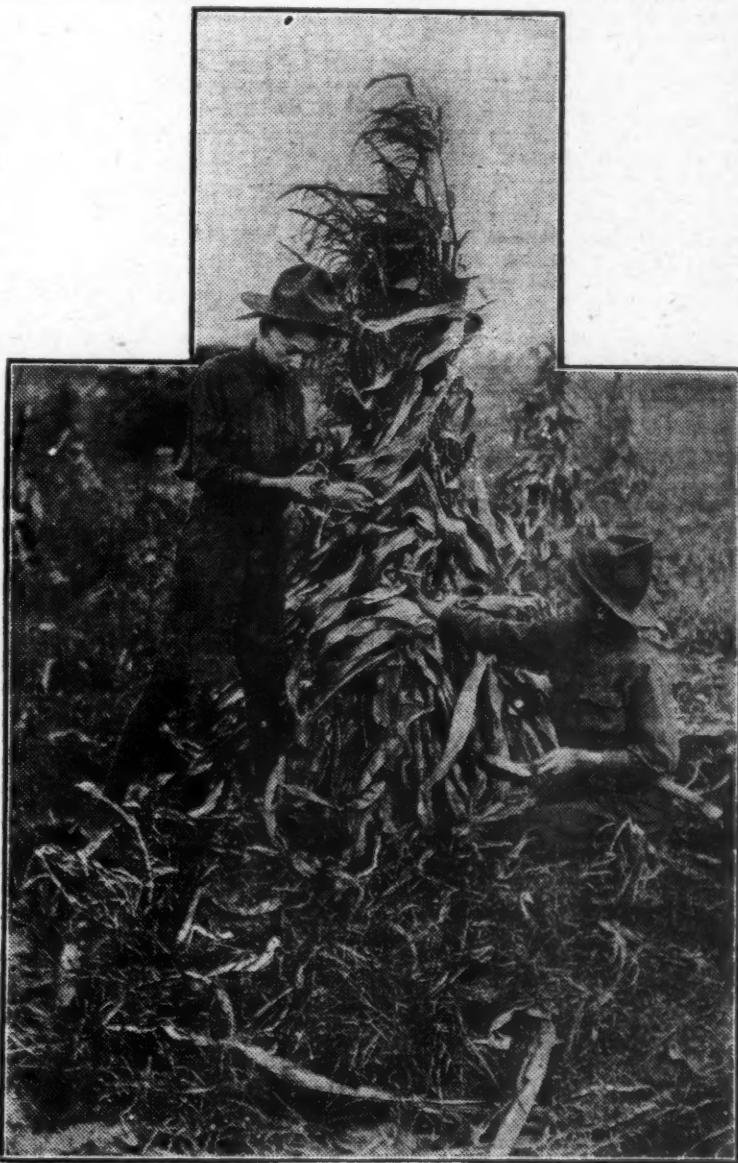
Keep cultivating!

After the potatoes are up so one can follow the rows, the cultivation should be deep and close to the rows. Let the dirt cover up the small ones, and it will not hurt the larger ones. Then follow in a few days with a light harrow or weeder, and uncover them. The next time, throw quite a good deal of dirt to the rows, leveling it down again with a harrow or weeder. With this method of cultivation one will not be bothered with weeds, and it is just the kind of cultivation that makes the potatoes grow. Do not hill potatoes very much, unless on low or level ground, and then only as a matter of drainage so the water will not stand on the ground.

Get started to cultivating the corn just as soon as you can, following the rows. While the corn is small run the cultivator deep and as close to the corn as possible without injuring the roots of the tender plants. Keep cultivating in order to keep the moisture in the ground, and let the sun help warm it up. Just as quick after a rain as one can, and the earth is dry enough to work, a man and team should be at work in the corn to have the moisture work on the roots of plant; this helps to keep the ground from becoming hard. Always aim to keep the ground loose if possible.

The principle of thinning fruit is the same as pulling or hoeing noxious weeds from other crops. The tree can furnish only a fixed amount of food to the fruit it is producing. If this is to be divided among an excessive number the result is starvation for all. In other words, if a tree will produce and ripen five bushels of peaches or apples when only the right amount is allowed to remain on the branches it will produce no more bushels if the excess had been left hanging, and the quality will be higher of the smaller number. As a bushel of corn will produce more pork when fed to one hog in sufficient quantity than it would if divided between two only half fed, so one specimen of fruit will contain more meat when properly nourished than two would if the nourishment, which can come only from the tree, were equally divided between the two.

Peter Stevens started the 2:10 list for 1914 by pacing a mile in 2:09 1/4 over the track at Chatham, Ont. He is by Peter the Great, and his dam is a daughter of Allerton. Sure, he has license to enter the list with that breeding.



READY FOR THE SILO.

received here from H. T. Nielsen, demonstration agent for that portion of the state. Two crops are got after one summer's following.

The land, Mr. Nielsen says, is listed in April or early in May, then is harrowed or not, according to the rainfall, and in May the ridges are worked down with a two-row weeder. Just before harvest the ridges are split and in this way the field can be left till after harvest. If conditions are such that weeds grow, the field can be readily cleaned with the two-row weeder after harvest and then worked into condition for fall wheat.

FLOWERS.

Editor Rural World: Flowers are one of nature's sweetest gifts to man. They are little missionaries teaching us beauty, purity and innocence. Flowers cheer the heart and make the home pleasant and inviting. Nothing for the money spent can give as much sincere pleasure and delight. No one should fail to plant a few flowers.

friends' gardens and see new flowers, or old ones we have forgotten, to put in our own gardens, also combinations of flowers that make or mar a garden.

A garden label that will remain legible after repeated rains or waterings seems at last to have been invented. It is the old wooden marker dipped into melted paraffine after being written upon with a pencil. The paraffine upon hardening becomes transparent and waterproof.

What new ways of doing old things in the garden have you discovered this year? Be generous and write the editor of this department your garden discoveries that we may all profit by your experience.

Tone up your plants by giving them a little liquid manure once a week or dig bone meal about their roots. Especially is this necessary with prolific

Road Grader & Ditcher

On Ten Days' Free Trial and at one-fifth cost of the big expensive kind. With 1 man and 1 team this Martin Road Grader and Ditcher does as much

road work in 1 day as 10 men and teams with plows, scrapers, etc., or as much ditching or levee work as 100 men with shovels, etc. No gears or triggers. Big money maker. Write for free book, prices and money back guarantee. OWENS ROAD GRADER & DITCHER CO., Dept. C. R. W. Owensboro, Ky.



FruitBook FREE

"The Fruit-Grower's Guide-Book" contains nearly 300 pages, nicely illustrated, full of timely information on all phases of fruit-growing. It tells how. Sent free with 25c for 6 months' trial subscription to Fruit-Grower and Farmer, twice a month, regular rate \$1 a year. Send coin or stamps at our risk. Write today. Brother Jonathan Fruit-Grower and Farmer, Box 710, St. Joseph, Mo.



SEEDS

Genuine Bluegrass, (Poa Pratensis) CHAS. E. PRUNTY, MAIN & MARKET, SAINT LOUIS

The Apiary

KEEP BEES.

The clovers, alfalfa, peas, and beans are plants which produce but little seed, unless the blooms are visited by insects. Among the most useful of these are the honey bees. A producer of alfalfa seed is benefited by having a number of colonies within a mile of the field, and no field growing alfalfa for seed should be more than two miles from an apiary. Bees are as important agents in the production of fruit and as colonies are not as populous at the time of fruit bloom as they are later in the season, and as the weather prevents long flights, there is a decided advantage in having colonies in or near the orchard.

Bees will stand some neglect and still thrive, yet systematic care will prevent heavy losses by dwindling when a colony becomes queenless, by the ravages of foul brood and the work of moths. Carelessly handled colonies and combs are a menace to well-kept apiaries in the immediate neighborhood because they serve as breeders of moths and spreaders of foul brood.

Combs can be cleared of the moth, in all of its different stages of growth, by stacking in hives and supers nearly air-tight and setting a saucer of carbon bisulphide in an empty super on the top of the stack and then closing tightly. The destruction of the moth is more thorough if the stack is left undisturbed for several days. Fire must be guarded against for carbon bisulphide is an explosive.

Foul brood is a bacterial disease and can be eradicated only by means of fire or transferring to a new hive. Badly infected colonies are usually burnt and the less infected ones transferred to a hive containing foundation only, where they use up the infected honey in the production of comb. After three or four days they are transferred to another hive with new combs. All infested combs and frames are burnt as soon as the bees are removed, and the hives are burnt out or disinfected. All tools that come in contact with the infected combs are sterilized in a flame, by baking in an oven or by the use of a strong disinfectant, like carbolic acid.—W. R. Wright, Assistant Bacteriologist, Idaho Experiment Station.

ROSE BEADS.

Gather the rose petals, all colors, although the dark ones are best. Grind them through a food chopper about 20 times, but it is not necessary to do this in one day. Grind them till you are tired and then set them aside in an iron kettle till next day. When grinding is complete, fry the pulpy mass in vaseline a few moments. By this time it will be quite black. Put vaseline in to keep the mass soft enough to make into balls. The vaseline seems to make them blacker and shinier, so put in as much as you need.

Roll them into balls as large again as you wish them, for they shrink, and then string them on hat pins or wire till hard.—Wm. Harrison, Clifton, Colo., Colorado State Board of Agriculture.

THE GUINEA ON THE FARM.

The guinea has never been a popular bird on the farm. The usual objections urged against this useful and really profitable bird are the guinea's wild nature, and noise; however, these are advantages if we take advantage of them. The wild nature leads the guinea all over the farm in search of worms and bugs that injure the farm crops and the noise helps to scare away hawks, and if a hawk ventures to go into the poultry yard in spite of the guinea's alarm, the other poultry that are not so watchful have taken advantage of the alarm and are already on their way to a safe hiding place before the intruder has got sufficiently close to be dangerous. There is not a more watchful domestic bird than the guinea.

The principal food of the guinea in

summer is grasshoppers, bugs and worms. They will eat the potato b. g., the gooseberry worm and many other injurious insects that chickens will not eat. As summer egg producers the guinea is superior to any other domestic bird. Guinea hens usually begin to lay in April and if kept from getting broody they will lay almost continuously until October. If a guinea hen lays a nest full of eggs she will get broody, unless she is broken up, but if she is broken up she will commence laying again in three or four days.

The guinea has not been a popular bird in the market in the past, but in recent years there has been a growing demand for young guineas. In the fall of 1909 young guineas weighing from one to two pounds each were quoted on the Philadelphia market at 60 cents per pair. This year two pounds and over young guineas are quoted at \$1.00 per pair on the same market. One pound guineas are quoted at 60 cents per pair by some markets. Breeding stock should be selected in February. One cock is sufficient for four or five hens. The first eggs laid are usually too early for hatching, but they find a ready market as they are very fine flavored eggs.

The young guineas should be hatched not earlier than June. July and August are also very good months for hatching guineas. They do best when hatched in warm weather then there are plenty of insects for them to gather. After the young guineas are three weeks old they may be safely entrusted to the old chicken hen that hatches them. The eggs should always be hatched under chicken hens. The guinea hatched in the middle of the summer will reach marketable size by the first of December or earlier.

We set about 20 eggs under a Wyandotte hen, then when two or three are set at same time, 25 to 30 young guineas may be given to one hen. Our young guineas got no food except what they gathered from the time they were three weeks old until it sets in cold in the fall and they were plump and nice.

Weekly Market Report

Cattle and Hogs Lower—Moderate Offerings Somewhat Slow of Disposal at 10c to 15c Declines.

CATTLE—Beef steer market opened on a slow basis. Buyers again sought quality and the trade reflected again the tendency to crowd medium kinds and widen the gap between them and the good beeves. The small offerings of strictly prime kinds was absorbed fairly early and sold steady, in fact, most sellers claimed they were strong. However, below the \$8.75 line on down to \$8, market was slow and in most cases prices were off 10@15c. Common beeves looked 15@25c off, in the bulk of transactions. It was plainly a market where quality was wanted, some right fleshy beeves even being neglected. Top was \$9.75, and a good sprinkling of weighty kinds sold at \$9@9.50.

Strictly good heifers moved actively at steady prices, while common to medium kinds were from 15@25c lower, and some right good killing classes looked 10@15c off. Supply of cows was rather generous, and the market, except on the better grades, was not satisfactory to the selling side. Best beef cows upward of \$6.50 were steady, as were also canners and cutters. Medium-grade cows and those that generally meet with stocker competition were 10@15c off, and in some cases more. Bulls were unchanged.

There was a liberal supply of stockers and feeders, and, as the demand was not very heavy, the showing was excessive, and the market was slow. With prices unevenly lower, some sellers claimed they had to sell at 10@15c losses and others said the market was even lower than that. She stuff found a very narrow demand and sold unevenly lower.

Supply of quarantine cattle, 120 car loads. Texas and Oklahoma divided honors in the supply. There was also a right good showing from southeastern territory. The market opened on a slow basis, and but little trading was done until close to noon. There was some support from order buyers, but they wanted the best grades, and

offered practically no competition for medium to good classes of grassers. Some fed steers above \$8 looked about steady, but the general trade below that mark was a dime lower. Little change was evident in the trade in canner classes, and, while the supply was good, the demand was ample to move them, and the market looked about steady.

HOGS—Just a fair supply and there was a scarcity of good hogs, and as the buyers were not in a very good humor the market was dull and on a lower basis on all kinds. Prices in a general way were about a dime lower than the best time Saturday morning, with the poor pigs and lights showing a loss of 15@25c and selling very slow most of the day.

A load of choice hogs weighing 210 pounds went at \$8.22½, which was the top of the market, while the bulk of the hogs sold at \$9@9.15. The market was on the highest basis of any of the western markets, as the top in Chicago was but \$9.15, and the bulk went at \$8.80@8.90, which placed that market 7½@20c lower than the St. Louis market.

None of the buyers were active operators, but shippers and butchers moved around much more rapidly than the packers. They purchased what hogs suited them by the middle of the forenoon and quit, so that from then on the trade was in the hands of packers and rather unsatisfactory to the sellers. Best hogs of all weights went at \$9.12½ and up, as the pigs and lights are bringing about as much as the heavier offerings.

SHEEP—Although there was but a moderate supply the market was on a lower basis. Lambs have been on the decline for a full week or a little longer, but this is the first decided break in the market on sheep for three or four weeks. In a general way both ends of the trade, that is, the sheep and lambs, both were 25c lower than the latter part of last week.

Lambs showed a loss of \$1.25 from the highest time the latter part of week before last, when the good kinds were mostly selling at \$9.25. The best price yesterday was but \$8, while culls went at \$4.50@6.50, as a rule at \$6@6.25. Buyers were sorting the lambs pretty deep and thereby made the tops strictly good quality, which made the market really lower than it might appear at the first glance.

Sheep for several weeks have nearly all been selling at \$4.75 to the slaughterers, but went at \$4.50, and the heavy ewes at \$5, which is the same as they have been bringing. Bucks also sold at \$3.50, the same as for several weeks past. Stockers and choppers went at \$3.25@4.00 in many cases, with the plain grade stockers at \$2.25@3.00.

HORSES—The demand was fairly good for this period from all eastern sections and the quality of the offerings ranged a little above the average. There were a few buyers from the South and a few animals went to this direction, which is a little out of the ordinary for this period of the year. The demand came mostly for the quality types of chunks, drafters and general good quality work animals that looked worth the money and were able to do a good day's work.

MULES—There were a few calls for big mules, miners and a few pitters,

but the quality played a very essential part in the selling of any of the kinds shown and only a few were disposed of. There was no market in the common class.



25c Corset Cover only 10c
Postpaid
A remarkable bargain. Just think of it! This extraordinary trimmed muslin corset cover is one of the most wonderful bargains ever offered. Made of excellent quality muslin. Has a beautiful blind and open work embroidery yoke and sleeves. Edged entirely around neck and armholes with beautiful pearl buttons. Draw strings. Usually sells for 25c. Withers to 44 in. Bust measure. Order direct from this ad. Write for 3271A. Postage prepaid. Be sure to state the size when ordering. Special price only.
Send for Bargain Book
of wearing apparel in newest styles. Mailed free. Write for SECOND SURE TODAY. Satisfaction guaranteed or money back.
W. & H. WALKER PITTSBURGH, PA.

BINDER ATTACHMENT with new harvester cuts and threshes piles on harvesting with rows. Man and horse work. Shock equal with a combine. Sold in every state. Price only \$20.00 with fodder knife. J. D. Borne, Harwell, Colo., writes: "Your corn binder is all you claim for it; cut, tied and shocked acres of corn, cane and corn last year." Testimonials catalog free, showing pictures of harvester. Address: **PROCESS MANUFACTURING CO., Salina, Kansas.**

WE WANT Parties to Sell MONUMENTS
Exceptional Proposition
Write For Particulars
U. S. Marble & Granite Co.
718 Fourth National Bank Bldg.
ATLANTA, GA.

A NEW WAY To Get Your Clothes Free
A NEW PLAN TO MAKE BIG MONEY DURING YOUR SPARE TIME
Something different—bigger, more liberal than any offer ever made. Lower prices, better clothes—bigger cash profits—all you claim for it; cut, tied and shocked acres of corn, cane and corn last year." Testimonials catalog free, showing pictures of harvester. Address: **PROCESS MANUFACTURING CO., Salina, Kansas.**
Double Pay
FREE clothes and cash profits besides. We don't ask you to use your cash profits for your own clothes. Ours is a new and better plan.
An Extra Present with every order. Not a prize scheme. Choose what you want, work for it and get it. Besides your Cash Profit. **Complete Outfit FREE.** Stylish, real cloth samples—Fashion Plates. Inside without prices. Everything FREE. Get into the big money-making class. Just put your name on a post card and mail it to us today.
SPENCER MEAD CO., Dept. 614, Chicago.

"INVINCIBLE, UNSURPASSABLE, WITHOUT A PEER"
Writes a regular subscriber, who has read it for many years, of the **TWICE-A-WEEK** issue of the
St. Louis Globe-Democrat
TWO ONE-DOLLAR PAPERS ONE YEAR FOR ONLY \$1.
and this is the unanimous verdict of its more than a half million readers. It is BEYOND ALL COMPARISON, the biggest and cheapest national news and daily journal published in America. It is STRICTLY REPUBLICAN in politics, but is above all A NEWSPAPER, and gives ALL THE NEWS PROMPTLY, accurately and impartially. IT IS INDISPENSABLE to the Farmer, Merchant or Professional Man who desires to keep thoroughly posted, but has not the time to read a large daily paper, while its great variety of well-selected reading matter makes it
an INVALUABLE HOME AND FAMILY PAPER.
Two Papers Every Week. Eight Pages each Tuesday and Friday.
Sample Copies Free.
GLOBE PRINTING CO.
ST. LOUIS, MO.
RURAL WORLD and GLOBE-DEMOCRAT \$1.00 NET
EITHER ADDRESS, BOTH FOR

The Pig Pen

GROWING PORK.

There should be, and usually is, more money made in raising hogs on the farm than other animals. Aside from cholera, hogs are less subject to disease, reproduce faster, and make better gains per pound of feed consumed. The annual increase of hogs, cattle, and sheep, ranges from 50 to 100 per cent. The increase of hogs should be from 500 to 1500 per cent. The sow has the advantage in bringing forth two litters a year and farrows several at each litter.

Dr Warrington in "Chemistry on the Farm" states that for each 100 pounds of feed consumed, the different farm animals make gains as follows: Cattle 9 pounds; sheep 11 pounds, and pigs 23 pounds. Pigs then make nearly two and a half times the gain over cattle for the amount of feed consumed.

The man who hauls hogs to market instead of corn is the one who should make money. Because of the fact that hog raising when properly managed has been so profitable, the hog has been styled the "Mortgage Lifter." The one enemy to the business is hog cholera. No doubt much can be done in controlling cholera by the farmers co-operating in adopting measures which will prevent the dissemination of cholera. It is up to the farmers themselves, on last analysis, to confine cholera on the one farm where it starts, by strictly following the advice of sanitary authorities and all working together to this end. I know of a farmer who kept his hogs healthy for four years, while the neighbors all around him were losing their hogs from cholera. He did it by an eternal vigilance in keeping infection out, and this man made a regular chore of cleaning the hog pens every Saturday afternoon.—Geo. H. Glover, Colorado Experiment Station.

TO AID THE STATE.

Anti-hog-cholera serum is the defibrinated blood (liquid portion of the blood) of a healthy hyperimmune hog. It is impossible for this serum to cause hog cholera, because it is charged with "antibodies" which possess the property of being antagonistic to the hog cholera infection and will protect, or immunize any hog against the disease.

Now is the time to vaccinate the hog, when the herd is in a good healthy condition. Do not wait until the hogs are infected before you think of doing something to save them. Vaccinate the hogs and be on the safe side. Vaccination is also a means of insuring the hogs against the ravages of cholera. At a comparatively low cost, a herd can be insured, and no danger felt, if there is an outbreak of cholera in the neighborhood. It is better to spend a few dollars for a preventative, than to suffer the loss of a whole herd of hogs.

In Idaho the number of outbreaks of cholera is small compared with the other states. It is the duty of every farmer of Idaho to co-operate with the state in suppressing the disease. If each hog-raiser will do his utmost to aid the state in this work, it will not be long before this destructive disease will be a thing of the past. The slogan should be, "All Pull Together For the Eradication of Hog Cholera in Idaho."—E. A. Kelly, Superintendent, Idaho Hog Cholera Serum Plant.

DON'T BUNCH THE SOWS.

Never keep many pregnant sows together. Three or four do much better than eight or ten. They are likely to be injured in piling up when several are kept together. Do not let or force them to drag over a high-silled doorway or jump a high stoop to get into their house. The farrowing of dead pigs results from such things.

FARROWING RATINGS.

There should be no change in the ratings of the sow at farrowing time, nor very soon after. Feed very lightly at first, and gradually increase

after the first few days or as fast as the litter can take all the milk furnished by the mother; otherwise, there will be danger of fever in the udder and a drying up of the milk flow, and stunted pigs.

Too rich a feed soon after farrowing brings on white scours, which proves fatal unless checked at once. Should one find his pigs troubled in this way, he should give a tablespoonful of flowers of sulphur in the feed daily for two or three days.

FEEDING FOR MARKET.

It requires a skillful feeder to feed hogs just right at the time for marketing them. If the animals are fed too heavily, they get "off feed" and will not consume sufficient to insure the most successful gains, while, if they are underfed, practically the same conditions result. In case the fatteners begin to leave a little corn after feed-time, cut down on the amount of feed given till their appetites again become normal; if they begin to show signs of wanting more feed, increase the amount given gradually, to prevent complications from the sudden change.

When pigs are pastured on mixed grass, clover or field peas, they will not consume as large amounts of mineral matter as when confined to limited quarters and when depending upon grain rations, nor do they need



A BREAKFAST RUSH.

so much supplied, for they are getting a great amount of their supplies from grass and clovers.

Nothing is so good for a hog on a hot day as plenty of good water. If there is a running stream in the pasture, all well and good, but in the absence of this, where the water can be supplied automatically from a large tank or barrel the animals are assured of plenty of drink at all times. This is far superior to watering from time to time. Cool water taken into the system tends to cool the animal. For that reason a hog is especially benefitted because he cannot perspire and cool his body in that way. Hogs occasionally get extremely hot while being handled and the tendency is to dash water on their bodies. This should never be done as the animal is almost sure to be instantly killed. Many have tried this and very few have ever succeeded.

The feeding of hogs should be an orderly conducted affair. Hogs may be developed in hogghishness or not, very much as desired. Where old and young, big and little are all fed together, a pall of feed at a time, a few hogs get to be bosses and get practically all the feed, while the youngsters and weaker animals get little or nothing and remain weak and small. Where yards permit the hogs should be graded according to size. Where 50 to 75 hogs are grown a couple of grades may be sufficient. Where 200 or 300 hogs are raised, five or six grades would be more effectual. Grades have been made so carefully that all the hogs in a bunch did not vary more than 25 pounds in weight among the smaller pigs and not more than 30 pounds among the larger hogs. Where yards are not available, by projecting two feeding spaces into the yard in which the large and small hogs are all mixed together and then providing creeps the small hogs may be separated from the larger ones and fed alone.

The Shepherd

RAPE AND SHEEP.

The Dwarf Essex rape is relished by sheep and produces rapid gains both in growing and fattening stock. The author of "Sheep Husbandry in Canada," says the culture for rape is the same as for turnips or other root crops, with the exception that it is not thinner in the row. It may be sown broadcast, but unless the soil is clean and rich, rape does better sown in drills.

Rape, like turnips, does best on soil that is rich in humus; the soil, the ranker the growth and the better the quality of the fodder. Old pasture sod well worked up makes a fine situation for rape. It is well to get the land ready to put in the seed as soon as desired after the ground becomes warmed up in the spring. It may be sown as early as corn and as late as the end of July, says N. Y. Farmer.

If sown in drills the rows should be about 28 to 30 inches apart, and about two pounds of fresh seed should be used per acre. On clean, rich land about three pounds of seed per acre may be sown broadcast. The writer has found best results from sowing in raised drills, but others claim just as good results when sown on the level. Frequent cultivation is as beneficial to

Spring Pigs & Bred Glits of the biggest type & highest quality. Also Angus Cattle. J. F. Vissering, Box 9, Alton, Ill.

Valuable Articles FREE

We give away hundreds of valuable premiums in our plan to introduce Fruit-Grower and Farmer to new readers. The "Country Home" Department is one of our many interesting features. Boys and girls and grown folks, too, can secure many valuable articles without cost. Send for free premium list and sample copies. "Brother Jonathan" Fruit-Grower and Farmer, Box 516, St. Joseph, Mo.



on rape free access to a grass pasture. It was the practice of the writer, after the season of white frosts had arrived, to fasten out the whole flock from the rape in the evening until the crop was almost or quite dry the following morning. Many rape feeders disregard this precaution, claiming that, after sheep become accustomed to it, rape feeding is not attended with danger.

A feed each morning of oats and bran goes a long way toward preventing untoward results. Experienced feeders have found that irregular salting greatly increases the danger from illness when sheep are on rape. A feeder who lost sheep after each salting found a complete remedy in withholding salt altogether while rape was being pastured.

It is estimated that an acre of rape pastured by 40 head of thrifty lambs receiving a moderate grain ration daily will yield 400 pounds of mutton. As a soiling crop rape is an excellent mutton-maker. As soon as the plants are well grown, they may be mown with a sythe or reap hook, to be hauled to the flock either in a shed or pasture.

If sown in May, it should be ready to cut and feed in July, and at the least one more cutting may be expected during the fall. It should be cut not lower than four inches from the ground, which will leave stumps that will produce a strong growth. Provided overfeeding is avoided, there is comparatively little risk attending soiling sheep on rape.

Bloat is the most common trouble in rape feeding. When noticed in the first stages, the subject should at once be removed from the rape. Salt and water given as a drench is a simple and much used treatment. A pint of a strong solution in which all the salt is dissolved constitutes a dose for a full-grown sheep. Aromatic spirit of ammonia is a good medicine for this trouble. A tablespoonful in a pint of warm water will usually afford relief.

If the case is so far advanced that the subject is down and the abdomen much distended, then the latter should be punctured at the point of greatest swelling with a trocar and cannula. If one has insufficient confidence in his surgical ability to perform this comparatively simple operation, it may be advisable, if recovery otherwise appear improbable, to adopt the time-honored policy, and kill the animal to save its life.

FEED, GROWTH, WOOL.

In the management of the flock feeding for growth of wool is as important as for the support of life. To produce a full crop of wool feeding must be generous during the entire life of the sheep. Under such feeding, the body being always fully supplied with nourishment, there is a surplus which goes to the growth of wool.

BEDDING FOR SHEEP.

While sheep do not require as much bedding as other animals on the farm, a certain quantity of it is good, as it will prevent their fleeces from becoming soiled, add to the health and comfort of the flock, and act as a medium through which their manure will cling together so it can be handled.

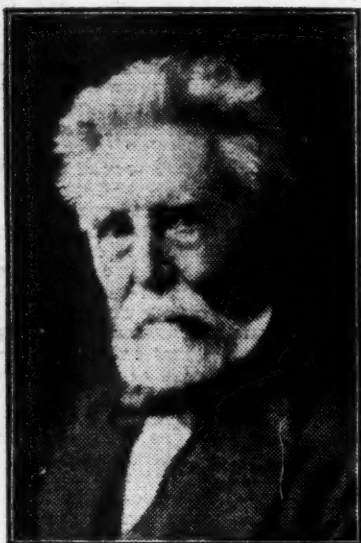
It greatly pays to feed a little grain to the lambs all through the summer. If they are to be fattened later, the grain-fed lamb makes more rapid and economic gains than the one that has received no grain until the fattening period. There is little danger of getting lambs that are intended for breeding purposes too fat, unless an excess of fattening feeds are fed.

Colman's Rural World

Founded by Norman J. Colman.
Published by
Colman's Rural World Publishing Co.
August Frank, President.

Advertising Representatives,
HOPKINS & SHAYNE,
910 Hartford Bldg., Chicago, Ill.
GEO. B. DAVID CO., INC.,
171 Madison Ave., New York City.

WILLIAM N. ELLIOTT, Editor.
C. D. LYON, Associate Editor.



Norman J. Colman,
First U. S. Secretary of Agriculture.

COLMAN'S RURAL WORLD was established in 1848 by Norman J. Colman, who later became the first United States Secretary of Agriculture. As a champion of advanced agriculture this journal has attracted nation-wide support, and is today held in highest regard by thousands of intelligent and discriminating readers.

COLMAN'S RURAL WORLD strives to bring the greatest good to the greatest number at all times. Each issue is replete with helpfulness and good cheer. It is read for profit and pleasure, and yields a satisfactory return to each individual subscriber. Our advertisers are rewarded with excellent results.

COLMAN'S RURAL WORLD is mailed postpaid to any address in the United States or island possessions for one dollar per year or three years for two dollars. All subscriptions payable in advance. Remit by draft, registered letter, postoffice or express money order. In changing address give old and new addresses.

COLMAN'S RURAL WORLD is published every Thursday at 718 Lucas Avenue. Contributed articles on pertinent subjects are invited. Address all communications to COLMAN'S RURAL WORLD, 718 Lucas Ave., St. Louis, Mo.

Entered in the postoffice at St. Louis, Mo., as second-class matter.

The Interstate Commerce Commission's scathing report on the New Haven railroad is the sensation of the week in financial circles, and that good will come from the report is an absolute certainty, as it has already started legislators in the nation's capital to work in earnest for the enactment of such laws as will bring about permanent reform and prevent in the future such wholesale looting. An era of honest finance is at hand.

The composite condition of all crops of the United States on July 1 was about 1.4 per cent above their 10-year average condition on that date. Last year the July 1 condition of all crops was 1.7 per cent below the 10-year average, but prospects declined as the season advanced, the November, or final, reports last year being 6.7 per cent better than the outturn of crops last year.

When so many city people are rising up to tell about rapid and ruinous decline of social and moral institutions in the country it is encouraging to see some attention being called to the splendid improvements which are really being made along these lines. According to a dispatch from Columbus, an exhibit of rural progress is being prepared. It will show: fine country churches several miles from any town, splendid centralized and district schools, with maps and charts illus-

trating the work of county agricultural agents, and county Y. M. C. A. secretaries. Everything will tend to show the improvement in farm life in Ohio. This exhibit will be shown at the Ohio State University in Columbus during Country Life Week, which begins August 10.

Numerous inquiries received recently by the U. S. Department of Agriculture indicate that promoters of so-called obesity remedies and fat-reducing cures are using an old trick dressed in new clothes to deceive fat people into spending money for worthless or dangerous preparations. The advertisements appeal to the vanity of people who wish to regain graceful figures and also to the business necessities of those who become so fat that they can no longer do their work efficiently.

With prices of steers and hogs going higher each week, together with the fact that we will have thousands of workmen employed by October 1, who will demand meat, makes it a sure prediction that meat will go still higher. The shortage in the 1913 corn crop forced the marketing of cattle last fall and winter, while the drought this spring forced the sale of many others, which leaves a very small per cent of cattle from which to get our meat supply. Farmers should raise more cattle as that industry promises to be a very profitable one.

THE THINNING OF FRUIT.

The early part of July is a good time to do thinning in apple and peach orchards. Few growers who have tried thinning and seen its results are willing to grow a crop without making this a part of the work. The chief object in view is to secure the largest amount of first quality fruit. Other considerations are the relief of overburdened limbs which might break from overweight, and a reduction of the strain upon the tree which maturing too large a crop would bring. In the first place, all fruits, imperfect because of insect, disease or physical injury are removed. Then, specimens that are in clusters or close enough to touch should be thinned off. When choice is allowed, those fruits which are most nearly uniform in shape and dominant in size should, of course, be allowed to remain. The indefinite part of the practice of thinning is the total amount of fruit to be removed. Here is where the thinner's judgment must be displayed. He will have to take into consideration, the kind of fruit, the number of specimens on the tree, the size he desires together with the strength of the soil and the probable rainfall. While some men thin apples and peaches to four, six, eight and even ten inches apart, yet it is better to adopt an elastic system which includes a consideration of immediate conditions.

EYE-STRAIN.

Measurements of human eyes demonstrate that there is probably no such thing in the world as an absolutely perfect eye. That would be a miracle which Nature with all her infinite ingenuity has never performed. No human face among all the world's sixteen hundred million may be held perfect, either artistically or physiologically. To the owner of the face, this is relatively an unimportant matter, but to the owner of the pair of eyes an error of one three-hundredth of an inch in the curvature or dimensions of the eyeballs may make their all-important function abnormal, resulting in eye-strain with its attendant physical ills. The eye responds to the slightest physical force in the world, that is, light waves which are hundreds of millions of times more infinitesimal than sound waves. The eyes are the hardest worked of all organs, and the safety and existence of human lives frequently depends directly on their accurate working. The harmful results of eye-strain, never wholly absent throughout life, may begin very early in childhood, even in the second year. Many little children, for instance, are constantly tearing their clothes, hurting their feet and legs, stumbling and falling, because their eyes are so faulty that their estimates of the size, location and nature of objects are not correctly made. Adults who have been

blind and are suddenly given good vision, require years to learn to see with accuracy or safety in action. Probably 6 per cent of children are left-handed, left eyedness causing left-handedness. From 6 to 10 years of age many children show an incomprehensible "nervousness," twitching of the hands and face, fickle appetite and various disorders, all usually due to eye-strain. Yet almost all of these cases of eye-strain can be relieved, and should be relieved in early childhood. The importance of correcting this condition early in the child's school years, and the influence of such a condition in the education and development of the child must be apparent to every parent and teacher.

PROGRESS IN THE KITCHEN.

The fact that a thing has always been done in a certain way—the mere precedent—limits originality and halts progress. For example: In a recent issue of the Survey the question why kitchen sinks have been made so low was discussed. No one seemed able to explain. Finally a certain maker discovered that the original sinks were made when the washing of dishes and other sink-work was done in wooden tubs with high sides. Such a tub when used in a high sink came up too far, so the sink was made low. Furthermore, as running water and fixed faucets had not long been made, the tub had to be lifted out of the sink, and the lower the sink the lighter the lift. Though improvements in faucets, dishpans and other accessories of kitchen sinks have been made, no one has seemed to realize that the sink could be improved by raising. So women were—and are—compelled to endure discomforts when doing their ordinary household work. There may be a certain percentage of inconvenience to be reached before the human mind grasps the fact that something must be altered. The wise inventor says the Journal of the American Medical Association, attains a reputation for brilliancy by making his invention before the need becomes obvious to others.

DELAY IN CANCER.

In the present state of knowledge the chief hope of reducing the cancer death-rate is found in early recognition of the disease followed by prompt and competent surgical treatment. Thousands of lives now needlessly sacrificed could be saved if the average cancer patient would go to the surgeon as promptly as does the average person attacked by appendicitis. Nor is there any reason why the cancer patient should not seek this, the only safe treatment, with the same high degree of confidence in the outcome that is now common among those suffering from the latter disease. Unfortunately, the evidence is only too clear that a different attitude toward cancer prevails and occasions many preventable deaths. The almost superstitious dread of the disease and unwillingness to admit its existence or to seek medical advice in time are well known and difficult obstacles to progress in its control. Proof of this fatal neglect is found in the experience of a New York surgeon who recently studied his case records in order to obtain definite information as to the delay in the average case. Among his last 2,000 patients there were 86 cases of cancer. Sixty-five of these had never been operated on, and came to him as new cases. Of the 65 patients, 35 were men and 30 were women. Further study of these 65 cases showed that after the first discovery of a tumor, or after the first suspicious symptoms the men had waited an average of 12.2 months before consulting the surgeon, and the women had waited 11.9 months; practically a year's delay in all cases. Another well known surgeon in a recent public address confirmed this estimate from his own experience. Winter of Koenigsberg, Prussia, the pioneer in the education of the public in regard to cancer, analyzed the records of 1,962 operable cases and showed that 87 per cent of these patients could and should have applied for treatment much earlier, when they would have had a far higher chance of recovery than was actually the case.

To the delay after the symptoms are manifest must be added the indefinite

time after the beginning of the disease before the patient recognizes the trouble. This period can be shortened by education. Fortunately the symptoms of cancer are present quite early and can usually be recognized if the patient understands their importance. In too many instances, however, the disease is not suspected until the symptoms are pronounced or until there is a tumor of considerable size. If we assume that this period averages six months, and then add the year's delay for which the patient is responsible, we find that the average patient does not seek advice until at least a year and a half after the onset of cancer. This precious time thrown away means, if not a fatal outcome, at least a serious instead of a minor operation. Science has not yet found the cause of cancer. It is not known how it is contracted or how it is transmitted from one patient to another. We do not know how to prevent it. Some day we will know. Meanwhile, cancer is increasing rapidly. The best advice that can be given to the public, with our present knowledge, is, to have every suspicious sore or lump removed and removed early.

MARIONVILLE, MO., NOTES.

Editor Rural World: We had a good rain June 15, had 18 days hot and dry weather. Since our rain of the 15th, we have had more hot and dry weather which is retarding the growth of our pasture grasses. Our young clover is badly damaged and quite a lot of it is killed from the effects of the dry and hot weather. Our corn is good. We are harvesting oats this week, they are well headed and filled, but straw is short, and we are having nice and dry weather for harvesting them. There is plenty of moisture in the cornfields, but the sun is so hot that the corn wilts in daytime. We finished harvesting oats yesterday. I see one of my neighbors stacking wheat. One thresher man is arranging to start his thresher June 27. We are plowing and dragging our corn ground. Our wheat, rye and oats are ready to stack or thresh. We want to stack our grain, it is cheaper than hiring six or seven men with wagons and teams. We are plowing our corn second time since the 16th of June rain. One of our neighbors was here today to employ two of my boys, two wagons and two teams, to help thresh wheat June 27. He will thresh from the shock. He told us that he was not going to plow his corn, not until after it rains. His corn has not been plowed for four or five weeks, and it had a heavy rain June 16. He rolled his corn two or three weeks before this rain, while corn was about six or eight inches high. All growing crops are needing rain. We could use some of Kansas' water. Kansas is suffering a great loss.

We had a light rain 29th and a good shower last night. Corn ground was too heavy to plow today before noon, but we started two cultivators and two mower wheels this afternoon. Most corn is in good shape, land clean and corn has good color, and is tasseling. If we can have sufficient rain fall we will have good corn. One crop of 30 acres of wheat has been threshed, which produced 18 bushels per acre. I believe the wheat in this section will make an average yield of 25 bushels per acre. No clover and but little timothy. Not many stock peas sowed the past two years. Peaches almost been a failure, mostly on account of the dry seasons. Farmers have almost lost faith in the pea business. Wheat, rye and oat straw are in splendid condition, so we will have to winter our stock on straw and corn fodder. Old corn is very scarce in this section, but we are blessed with good oats, which is a good substitute to hay.

Marionville celebrated our Nation's Birthday, despite the steady rainfall, which fell all day. There were several hundred people present. Had good speaking and music, and I presume the majority of the women who were brave enough to tramp over the college campus bareheaded and light clothes and white slippers on, so anxious to celebrate our Nation's Birthday, are suffragists. Because women who can brave such a day as the Fourth, are brave enough to vote out the hellish

(Continued on Page 9.)

NO DANGER OF FIRE!

An Electric Lantern For Everybody.
Cheaper Than Oil---Our Great 1-2 Price Offer.

An Electric Lantern For Every Home

This is one of the handiest and most useful articles ever made. By just pressing a button it gives a flood of pure, white light, more powerful than fifty candles. This electric lantern has a hundred uses around the house, farm, camp, garage, in fact it can be used wherever a good light is wanted. Just think how much easier and safer it is than the old-style oil lamp. No fumbling with matches, no danger of fire. Will run for months without refilling. A child can operate it. Will throw a light 50 feet. Always ready for use. Batteries discarded from use on telephones, autos or engines will run the lantern for months. It won't ignite gas, gasoline or hay. It is fire-proof, water-proof, weather-proof and trouble proof. Our half price offer puts it within the easy reach of every one. You must act quickly if you want one. Sign the coupon at once and send it today, sure. This offer will be withdrawn as soon as our present limited supply is exhausted.



NO DANGER OF FIRE

Just touch the button and you have a bright, white light that will enable you to distinguish objects fifty feet away on the darkest night.

1/2 PRICE OFFER

This Electric Lantern Is

**WATER PROOF
 WEATHER PROOF
 FIRE PROOF
 EXPLOSION PROOF**

It costs less to run it than it does to burn oil. The battery will last for months. Batteries discarded for use on autos, telephones and engines will run the light for a long time.

EVERY SUBSCRIBER TO THIS PAPER IS ENTITLED TO A LANTERN.

Sign the coupon and send \$2.10. One year will be added to your subscription and the lantern sent postpaid. Subscribers already paid ahead can get this lantern as well as new subscribers.

Send Only \$2.10 For Colman's Rural World (ONE YEAR) and This Electric Lantern

Sign the Coupon Below at Once

DESCRIPTION

Height 8 1/2 in. Lens 2 in. in diameter

This electric lantern was designed and built to fulfill the long felt want for a reliable portable electric lantern, suitable for continuous burning.

Extra batteries may be bought at any hardware store at small cost.

Battery—Uses one ordinary dry battery. No. 6 cells, such as are used for autos, gas engines, door bells, telephones, etc., are suitable. Batteries discarded for use on autos, telephones, and engines will run the light for months.

Case—Cold rolled steel, handsomely finished in high gloss baked enamel, making it water-proof, acid-proof, and weather-proof.

Bulb—The bulb is made of special tungsten wire and has been designed for exactly this purpose.

Reflector—A scientifically designed and shaped piece of glass is silvered by a secret French process; will never tarnish. It is protected by a drawn steel case.

Lens—It is ground and polished out of the very finest lens glass.

Battery Connectors are designed to fasten on the standard terminals of the No. 6 dry battery.

Packing—Each lamp is neatly packed in a separate carton.

MARIONVILLE, MO., NOTES.

(Continued from Page 8.)

whisky business that is ruining so many of our boys and girls, and destroying so many happy homes. Wonder what has become of Friend Lyon. I guess he is converted and is out working for woman suffrage. A slow rain fell most all day July 4 and 5. Rain fell most of last night. The ground is thoroughly wet now, all this rain has gone in the ground. There has been no wind to throw our corn and blow our wheat shocks down. Just simply an old-fashioned corn rain, the kind that makes the bumper crops. There have been a few crops of wheat threshed, the lightest yield that has been reported, 18 bushels per acre, and the heaviest yield, a fraction over 38 bushels. Oats are well headed, and filled, but straw short. All cut and cured during the dry weather and are in fine condition. Our five wet and warm days shadowed by clouds are causing wheat to sprout on the wheat shocks. Never had a finer prospect for a good corn crop, with sufficient rainfall during July and August we have hopes of a bumper corn crop. Clover hay is as scarce as hens' teeth in this section, but few stock peas sowed. A little cane and millet are being sown. With good oats and corn fodder I guess we can go through another winter. Apples, apples, apples, more apples and good apples, but this is no rare thing for the S. E. corner of Lawrence county. I have two barrels of 1913 apples in cold storage now. I extend an invitation to all the readers of the grand old Rural World to come down here in the garden spot of Missouri and eat red apples, and visit us people who are willing to humble ourselves and praise God from whom all blessings flow. You needn't expect to meet a more jolly set of boys than us poor humble farmer boys, are. Wishing all the readers and editor of the Rural word and more especially the Home Circle people a happy and prosperous future. A friend to all of you. I will write to the home circle some time in the near future. I like to read the good and useful letters of the Home Circle department. Dear readers and correspondents, let us endeavor to make the Rural World and the Home Circle page of our paper better, if possible. Let us try to lift our boys and girls from the lower seats to the high seats. Most of them know how to reach those seats, but they need help.

E. N. HENDRIX.

Farm Student and Information Seeker.

Electric Lantern On the Farm

Surely these are the days of progress. Within the memory of many readers we had nothing better than a "tallow dip," then a coal-oil lamp was considered a luxury; later homes in cities were lighted by gas, and today we have the latest improved electric lights, which are not confined to cities but are found in all up-to-date farm homes.

Probably the most practical and useful article so far invented is the Electric Lantern for the farm, as all danger of fire is eliminated, besides being cheaper than oil, and when the farmer walks around his home he is not in constant fear of his lamp being knocked over, thus saving him from constant worry. This Electric Lamp was designed to fulfill the long-felt want for a reliable, portable electric lantern suitable for continuous burning. It is simple of construction and uses one ordinary dry battery. It is handsomely finished, is water and acid-proof as well as being weather-proof. Every farm home should be provided with one of these Electric Fire-Proof Lanterns.

Here is the most wonderful offer Colman's Rural World has ever given its readers. We have searched for months to get an absolutely dependable electric lantern and here it is at half price. We are the first publishers in the United States to make such a liberal offer.

MAIL THIS COUPON TODAY

Colman's Rural World, St. Louis, Mo. I enclose \$2.10 for which extend my subscription one year, and also send me the Electric Lantern outfit complete, all charges prepaid.

Name
 P. O.
 R. F. D. Box.....
 State

Home Circle

THE GOLDEN EVENTIDE.

I gave her a rose in the golden days,
When the mill-stream's song was still,
And clouds were floating to gild the west,
When the sun set over the hill,
And it spoke the words I fain had said,
And it told her all my dream,
Once in the golden eventide,
On the banks of the silver stream.

I gave her a rose in the after days,
When the stream of life flowed on,
And dreams were floating to gild our path,
As they shone o'er memories gone,
And it spoke the love she knew so well,
And it woke the old sweet dream,
Dreamt in the golden eventide,
On the banks of the silver stream.

I laid a rose on her silent heart,
When the tide of her life was o'er,
And angels floated to gild her path
Nearer the heavenly shore.
No longer need the rose's voice
Awake the old sweet dream,
Dreamt in the golden eventide,
On the banks of the silver stream.
—Mary Mark-Lemon.

A PLEA FOR OUR USEFUL BIRDS.

By Jacob Faith.

Through your kindness I wish to offer a plea for our useful birds—The vacation of school is here.

Thoughtless boys and idle sportsmen love to go hunting through fields to kill and cripple the useful birds that are grown and fed by the busy farmer. Killing useful birds is a mistake; they should be protected by the laws of our land. I am sorry that so many seem to think it something to be proud of to kill and cripple the useful birds. My young friends, think of the cruelty of leaving those that are wounded to starve and die, unable to get food and water. Think, too, of the suffering and distress caused by killing a mother-bird, robbing nests and leaving young ones to starve. Are such acts of cruelty anything to be proud of? Are you not condemned by your conscience and your Creator, who made the birds as well as ourselves, to possess the land, to greet the world and cheer sad souls? Think, my young friends, when you are about to shoot for mere sport the little birds that have done you no harm and have blessed and cheered you with their songs, how heartless and cruel it is. It seems to me of all inferior animals the birds were made the most cheerful, and God was kind in making them such constant associates for the human family. It is a fact that birds are indispensable to the successful fruit grower and farmer. If farmers knew the real value of birds and toads as insect destroyers, they would protect them on their premises. But I don't claim that all birds are useful. The English Sparrow will not feed on injurious insects; they take our fruit and grain and leave the insects. Science has never been able to prove they do some good, but not enough to balance the harm; so treat them as foes and don't spare their lives. I will also admit that useful birds eat and destroy some fruit and grain, but not enough to offset the insects they eat. I am willing to give them what fruit they eat, especially mulberries, which can be easily raised, for the insects they destroy. Slay the rabbits also, as they destroy our fruit trees. The farmer who owns the land is by right entitled to determine which to destroy on his premises. Birds soon learn who their friends are. A few years since I plowed in my orchard. First the birds were shy of me, but in a few days they would come within a few feet of me.

It is said St. Valentine's Day, February 14th, is set for making love, as the birds mate on that day for that year, and in that union we hear of no untrue love or divorce.

Allow me to advise our daughters to avoid young men who wilfully kill

useful and harmless birds. Such are apt to make heartless husbands. It may also be said that young men do not select women who for vanity wear as ornaments the stuffed remains of birds upon their hats. A maid who faints at the sight of blood and dares not kill a mouse or face a toad will wear on her hat the mangled forms of half a dozen birds. I surely do not object to the imitation of feathers to wear on hats. I believe the tender sex, could they see the cruelty inflicted on thousands of birds by having their feathers taken from them while alive, would shudder at the act.

Mothers, allow me to ask you to impress upon your children to love and be kind to God's creatures. Let each good thought be fitly spoken wherewith to subdue crime and cruelty.

EDUCATION.

By Janetta Knight.

Dear Home Circle:—I am asking questions this time. And would like to have every one's opinion, real or imaginary:

Should we educate our girls to be independent, or wage earners? Do they make the best wives after they have learned to count the pennies, think twice before they buy, and count the cost before every expenditure?

Are such independent wives really happy?—When they must ask husband for money, and are asked "What do you want it for?" If it happens to be some trifle, so dear to a woman's heart, and he says, "No; that is not necessary," and goes off thinking no more of it—Do you suppose that wife is happy? The thought would come: "I had those things before I married; why can't I have them now?"

Should there be one pocketbook? Each one going to it as the necessity arose? Or should each have their purse? The husband giving the wife so much a month, or every six months? These are questions that our girls and boys will soon have to face for themselves.

Will the girl that goes to papa and says: "I want a new dress, please, papa; and the amount is given to her readily, be one that will depend upon husband the same and be the most contented and happy; not knowing whether husband is head over heels in debt? And perhaps he fails—he has always been so free she has had no idea that his affairs are in such a condition.

Or should husband and wife talk over business affairs, and plan to save and pay those debts? Many a wife has been sorely wounded because she could look back and see many things she would willingly have done without had she known.

I think many of our young people take upon themselves the marriage vows without having given these things proper thought. They are not able to talk those things over in a quiet manner. After marriage they find they each have an opinion of their own, and love to keep it.

Are Mrs. Mardus and C. D. Lyons taking a vacation? I have not seen their names for some time.

Did it rain with you the fourth? It rained here most of the day; also the day before and the day after, but some people would celebrate, and did, even if it did rain. There was no dust to bother.

OUR LITTLE TOTS.

By Albert Vassar.

I wonder how many do realize that some day their little ones will be grown up and soon no more to be their little tots. I often would remain home Sunday night and take care of the little tots while my wife would go to church with some of her family, who lived next door to us. I will mention one or two instances and then add the verses on our tots.

In those days it was the style to have folding beds, and all of ours was such before the iron bed came in use. My (our) four little tots and myself would all get into one bed as they insisted on my telling them some stories. And they say I would often fall asleep while telling the last story. One night they all got in

bed ahead of me and were dancing around in their nightgowns and got too near the top of the bed and their weight, with about 500 pounds of iron weights, made the bed close up quickly with a crash. And 'twas the greatest scare of my life, as I thought they were surely killed. I moved the bed out from the wall to get at them, and pulled them out one by one. And lo and behold, not one of them was injured, and then such laughing that took place. I can almost hear it yet.

Our Tots.

Our babies have a wonderful lot of patience.

They look 'round and don't even say a word; But they soon find out that they are of much importance, And are not long in making themselves heard.

They free their little feet and do lots of kicking,

And when they see the bottle coming they smile;

They play with their toes and try to do some talking,

And want to be doing something all the while.

At the table we love to watch their jolly way,

Throwing down spoon for mama to pick up,

Scattering their potatoes all around the tray,

And now and then they break a dish or cup.

'Tisn't long before our babies commence to creep,

Then they try to walk the floor very soon,

But the journey's most too long for their little feet,

And they tumble flat when half-way o'er the room.

"Now try again," and away go the little feet,

As they trot back to mama over there;

And this time that tiresome journey's made complete,

And with smiles mama strokes baby's silken hair.

Around they trot, their feet not knowing when to stop,

And are mischievous as they can be;

Baby filling up papa's shoes with spelling blocks,

So that dad-dad might know his A B C's.

Then when papa comes home and opens the door at night,

There is baby dumping bright and fair,

Jumping and kicking about with such delight

That over goes the baby in its chair.

When they're old enough to know Santa's coming,

They write Santa and tell him what to bring,

And how cutely they hang up their little stockings,

And mama sees that Santa doesn't miss a thing.

How pleasant to see those eyes sparkling with delight,

And hear the little ones speak out with joy:

"Papa will you tell us some stories tonight,

Of times when you were once a little boy?"

Mingling with the little ones after a weary day,

Their cheerful spirit drives away our cares;

And how sweet to hear the little tots say:

"Mama, will you hear me say my prayers?"

Bending our heads we get close by that we may hear

All that the little voices may have to say;

Their tender loving words so fill our souls with cheer,

Seems an angel comes to brighten up the way.

St. Louis.

WHAT CHILDREN SHOULD EAT.

The best meats for children of all ages are crisp bacon, broiled and roast beef, lamb, mutton, chicken, and white fish. If meat broths are used, it should be remembered that they are valuable chiefly as stimulants and contain very little food substance.

Between the fifth and tenth years

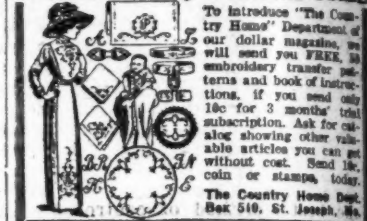
FOR UNSIGHTLY COMPLEXIONS Use Beautiola.

Freckles, Pimples, Blackheads, Moth Spots disappear; wrinkled and unsightly complexions become clear, clear and youthful by the regular use of Beautiola and Beauty Cream (used as a cleanser).

These products do their work easily, quickly and at little cost. They are trade-marked and guaranteed. Sold by druggists and direct. For \$1.00 you will receive one box of each of these popular and magical beautifiers.

THE BEAUTIOLA CO.,
2924 Olive St., St. Louis, Mo.

50 Embroidery Patterns FREE



the diet should still include a large amount of milk. New foods are gradually added until the child is eating practically the same food as the adults of the family. A well mixed diet, including a reasonable amount of vegetables and well ripened fruits, is always desirable. Individual preferences cannot always be overcome, but careful training will do much toward cultivating a taste for all kinds of food.

In the adolescent period the large amount of food needed makes it important that it be of an easily digested kind, simple, and rich in protein and mineral salts. The average active boy of 14 will need quite as much food during the day as a grown man of sedentary habits.

Egg lemonade made with two yolks to a glass, is a valuable addition to the diet of the girl in her teens if she is pale and undernourished—Miss Cora E. Binzel, instructor in home economics, University of Wisconsin Extension Division.

THE FARM HOME.

Too often the farm is considered to be a place to make money, with little thought of it being a home. If the family dislike the farm, it may be largely due to lack of conveniences about the house, or absence of shade trees, grass and flowers. So often you hear the man say, "I can't afford to spend my time fixing things around the house and yard, for that don't bring in any crops, and I need all my time in the field." But a fair expense of time and money is justified if it produces a contented family, for it puts their hearts into their work and the chances of success are accordingly greater, and very often the home can be made beautiful by its immediate environment while not detracting from the earning capacity of the land which supports it. "If we plant wisely we shall reap the contentment of the shade in the next generation. If a farm is regarded as merely a cold, money-making enterprise, we miss the harvest of the good living in later years. If we look upon the farm as a home and cultivate those essentials of satisfying living, comforts, trees, and flowers—things of beauty—we reap a perennial harvest in the ripe years of old age, when such things come to have a value far beyond grains and fat beasts.—V. M. Conn, Colorado Agricultural College.

Molded Chocolate Custard—Four tablespoonfuls of cornstarch, 3 cups milk and 4 ounces grated chocolate. 3 tablespoons sugar, yolks of 3 eggs and 1 teaspoon vanilla extract. Dissolve the grated chocolate in half pint milk. Blend the cornstarch with a little cold milk. Put on the remainder of the milk to boil. When almost boiling, slowly add the cornstarch. Stir vigorously till quite smooth; add the dissolved chocolate, sugar and yolks of the eggs. Flavor with vanilla, and pour into a glass dish that has been rinsed with cold water. When cold, turn out and serve with whipped cream.

SUGAR CURED HAMS AND BACON.

When the meat is cooled, rub each piece with salt and allow it to drain over night. Then pack it in a barrel with the hams and shoulders in the bottom, using the strips of bacon to fill in between or to put on top. Weigh out, for each 100 pounds of meat, eight pounds of salt, two pounds of brown sugar, and two ounces of saltpeter. Dissolve all in four gallons of boiling water, and after cooling cover the meat with it. Bacon strips should remain in the brine four to six weeks; hams six to eight weeks. This is a standard recipe, and has given the best of satisfaction.

NEW BULLETIN ON HOUSEHOLD INSECTS.

"Ten Common Household Insects" is the title of a new extension bulletin which is now available from the College of Agriculture. It was written by Prof. Herbert Osborn and contains many timely suggestions as to the best method of control of the most troublesome of household insects, including the house fly, mosquito, cockroach, bedbug, clothes moth, carpet beetle, house ant, meal moth and saw-toothed beetle. In speaking of the control of the house fly, Prof. Osborn says, "Strict attention to the disposition of all decaying materials such as manure and garbage is the real basis of control. All

such materials should be disposed of promptly. This disposal is provided for in towns and cities, but on farms and in small towns where there is no sewage system or direct control, personal attention to such disposition is necessary. The most effective disposition of stable litter, providing against fly breeding and retaining the fertilizing value, is to spread it at once upon the fields, where it may soon dry out. If it is necessary that it accumulate for any length of time, it should be stored in tight receptacles and either treated with substances that will destroy the flies or should be covered or screened so as to exclude them."

GETTING RID OF MOSQUITOES.

Since it is supposed that the common house mosquito does not travel far, much can be done to prevent the annoyance of these pests by doing away with their breeding places. Screening will exclude mosquitoes, but the better practice is to avoid their development by looking after the drainage of small pools, and the disposition of tin cans or other articles that may retain sufficient water for them to breed in. If rain barrels, water tanks, cisterns, and other reservoirs are necessary, these should be screened or covered in such a manner as to prevent the entrance of mosquitoes as these insects develop

only in water. Pools or small bodies of water which cannot be otherwise controlled and which are too small for the keeping of fishes may be treated with a film of kerosene to prevent any mosquito breeding.

POULTRY EXPERIMENTS.

As a result of feeding experiments conducted at the Missouri station it was concluded that whole grain does not fatten chickens; that it is cheaper to feed the grain finely ground and that the best gains can be had by feeding birds finely ground feeds when confined in crates. In feeding experiments with three different fattening rations composed of various amounts of corn meal, the gains made were in proportion to the amount of corn in the ration. The best returns resulted from a ration consisting of 24 parts white bolted corn meal, 6 parts low grade flour, and 1 part each oatmeal, pea meal, buckwheat middlings and wheat middlings. The flesh of the birds fed on this ration was creamy white in color, the fat was distributed over the body, and the entrails were encased with fat.

IMPROVING THE DIRT ROAD.

In spite of the fact that you sometimes hear it said "The money spent on the dirt roads is wasted," the truth remains that the condition of the dirt roads is steadily improving, compared to a few years ago.

The Journal of Agriculture has given much space to boosting for better roads and the driving over the roads of this county brings a feeling of pleasure to see the advancement of good roads and good roads sentiment. Let us do our part well, every one of us, this year toward better roads. "Good Roads Days" are coming again this season—the date is not yet set, but it is expected soon after corn plowing and harvesting are well over.

The Hopper Stock Farm, Indianola, Iowa, named 15 foals in the Iowa State Fair Futurity No. 1.

50 Embroidery Patterns Free To introduce our high-class illustrated farm magazine, we send 50 embroidery designs and instruction book free, if you send only 10c for three months' trial subscription. Address: "The Country Home" Dept. 313, St. Joseph, Missouri.

CLASSIFIED WANT and DEPARTMENT FOR SALE

YOU CAN BUY, SELL OR EXCHANGE MOST ANYTHING IN THESE COLUMNS AT THE LOW RATE OF

One Cent a Word Each Insertion.

In this department we will insert your advertisement under a classified head for 1 cent a word per issue. Initials and numbers count as words. These little ads. are read by thousands and give results. No ad. accepted for less than 25 cents, cash to accompany order.

SMALL ADS. DO BIG THINGS.

TRY A CLASSIFIED AD.

HELP WANTED.

U. S. GOVERNMENT WANTS men and women over 18. \$85 to \$150 month. Thousands appointments coming. Common education sufficient. List of positions open free. Write immediately. Franklin Institute, Dept. J 167, Rochester, N. Y.

HUSTLING man under 50 years wanted in each locality. To join this society and introduce our new memberships. Part or full time—\$50.00 to \$500.00 monthly. Experience not required. Address: The I-L-U 2921, Covington, Ky.

FARMS AND LANDS.

FARM HOME in healthy West Fla. No drouth, no snow. "Facts about Florida" free. W. S. Reeve, Pensacola, Fla.

WRITE ME for prices: cheap lands, any size tracts; abundance of rice; good crops; fine grass. J. J. Lindsey, Lamesa, Texas.

LITTLE RIVER VALLEY LANDS, rich and cheap; on railroad. Robert Sessions, Winthrop, Ark.

HOMESTEADS and proved up places for sale. For information write John M. Edes, Williams, Beltrami Co., Minn.

FOR SALE, 8 acres, 1/4 mile from town; good 6-room house, good well, three chicken houses, 3 acres of tomatoes. Box 3, Sandborn, Ind.

400-ACRE farm in Hettinger Co., N. Dak. all broke but 50 acres; some alfalfa. Will trade for land or stock. Box 955, New England, N. Dak.

STOCK OR GRAIN farm of 108 acres in Southern Indiana, 12 miles north of Louisville, Ky. J. M. Noble, R. R. 1, Sellersburg, Clark Co., Ind.

100 ACRES good land, 10-room house, near village, large barns, silo, henery, 15-acre timber, fruit, running water, \$2,700. Other farms, \$1,000 to \$5,000. S. Crusier, Montrose, Pa.

SPLENDID FARM of 48 acres, just across corporation line from Miami University grounds, fertile and well watered, fine for dairy and poultry, a splendid chance to educate children inexpensively; 11-room house, 40-42 barn, two silos; ten cows, 18 acres of nice corn, 2 cuttings of alfalfa in mow go with it. Possession immediately. Owner, Box 278, Oxford, Ohio.

I, A WELL KNOWN orange grower of Ocala County, Fla., have some desirable orange groves for sale. Prices range from twenty-five hundred dollars to nine thousand dollars, on quick sales. I am no real estate agent and am offering for sale my own property. Have been in the business for thirty years. For further particulars, etc., write, Mr. J. S. Bronson, Kissimmee, Fla.

SEED AND NURSERY STOCK.

SWEET CLOVER SEED—Pure white and large biennial yellow. Prices and circular sent on request. Bokhara Seed Co., Box D., Falmouth, Ky.

AGENTS.

WILL PAY reliable woman \$250.00 for distributing 2,000 free packages Perfumed Borax Washing Powder in your town. No money required. W. Ward & Co., 214 Institute Pl., Chicago.

DOGS.

FOR SALE—Thoroughbred female Fox Terrier pups, from excellent ratters and workers, \$3 each. Geo. L. Merchant, Spencer, Iowa.

LIVE STOCK.

HAMPSHIRE HOGS, eligible to register. Prices right. J. T. Shumaker, Martel, Ohio.

BERKSHIRES, splendid lot of pedigreed Berkshires, all ages. Pigs, \$10 each. H. H. Shepard, Pacific, Mo.

NICELY MARKED GUERNSEY CALVES—either sex, \$17.50 each, crated for shipment. Edgeworth Farm, Whitewater, Wis.

A FIRST-CLASS registered Guernsey cow, tuberculin tested, \$175.00. H. McAdam, 182 Wisconsin St., Milwaukee, Wis.

FOR SALE—Entire herd of 25 head finely bred registered Holsteins. All females but two. For further particulars address Geo. M. Watson, Scio, N. Y.

GUERNSEYS WANTED—Two pure-bred or very high grade spring heifer calves. Milk and butter records of dam first letter. Karl Keffler, Three Springs, Pa.

HOLSTEIN heifer and bull calves out of high-class registered bull and 1/4 or better pure blood dams at \$15. James Dorsey, Dept. C. W., Gilberts, Ill.

REGISTERED GUERNSEYS, two young bulls, ready for service, of fine type and breeding. Fully guaranteed. O. R. Schwaben, Roberts, Wis.

TWO HIGH-CLASS registered Guernsey bull calves, 7 and 8 months old, \$85.00 and \$100.00. Nothing better. H. McAdam, 182 Wisconsin St., Milwaukee, Wis.

28 HIGH-GRADE Guernsey cows, 25 yearlings and 2-year-old heifers of exceptional quality for sale; must go quick. Come and see them. H. R. Lobdell, Mukwonago, Wis.

MISCELLANEOUS.

NEW FLUFF RUGS, made of old carpet; sample free. Harding Bros., Cuba, Mo.

WANTED—To buy 5,000 mink and foxes, \$2.00 to \$5.00 each. Beechurst Co., Shelbyville, Ky.

INSECT-BAG—It kills flies, not some but all. Safe, simple, economical and effective. Twenty-five cents in stamps. Fore & Co., Roxobel, N. C.

TWO MORE GIRLS (and 1 boy) may work 1/2 expenses through Ruskin-Cave College. Takes only 175 students. Write today. President, R. E. Smith, Ruskin, Tenn.

INCUBATOR TROUBLES. My secret discovery hatches every good egg. No dead shell. Took me 15 years to learn the missing link. It's an eye-opener. No appliances for sale. Information free. Dr. Hopkins, St. Francisville, Mo.

SAN FRANCISCO FAIR!!! Do you want to go there next winter???? Spend a penny for full particulars. Send us a card and we will forward literature telling you how to make money in spare time. Compton Bros. Agency, Findlay, Ohio.

WHY PAY big cleaning bills? Our famous H. & S. Dry Cleaner, makes cleaning suits, dresses, curtains, carpets, etc., at home a pleasure. H. & S. Special takes out paint, grease, ink, etc. Guaranteed to be the best dry cleaning preparation on the market. Used by all big dry cleaners. Send 15 cents for trial bottle of either, 25c for both. Dry Cleaning Supply Co., Office 113 N. Main St., Orrville, Ohio.

PATTERNS FOR RURAL WORLD READERS.

In ordering patterns for Waist, give bust measure only; for Skirts, give waist measure only; for children give age only; while for patterns for Aprons say, large, small or medium.

1011. Girl's Dress.

Cut in four sizes: 6, 8, 10 and 12 years. It requires 3 1/2 yards of 36-inch material for an 8-year size.

1001. Girl's Dress.

Cut in four sizes: 2, 4, 6, and 8 years. It requires 2 3/4 yards of 44-inch material for a 4-year size.

9992. Ladies' One-Piece Apron.

Cut in three sizes: Small, medium and large. It requires 3 1/4 yards of 36-inch material for a medium size.

9795. Dress for Misses and Small Women.

Cut in four sizes: 14, 16, 17 and 18 years. It requires 5 yards of 44-inch material for a 17-year size.

1017. A Group of Stylish Collars.

Cut in three sizes: Small, medium and large. It requires for No. 1, 3/4 yard, for No. 2, 3/4 yard, for No. 3, 5/8 yard and for No. 4, 3/4 yard of 24-inch material for a medium size.

1001. Boy's Suit With Knickerbockers. Cut in four sizes: 3, 4, 5 and 6 years. It requires 3 yards of 44-inch material for a 5-year size.

9827. Ladies' House Dress.

Cut in six sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. It requires 7 yards of 27-inch material for a 36-inch size.

1015. Ladies' Costume.

Cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 8 3/4 yards of 44-inch material for a 36-inch size. The skirt measures 1 1/2 yards at its lower edge.

These patterns will be sent to RURAL WORLD subscribers for 10 cents each (silver or stamps).

If you want more than one pattern, send 10 cents for each additional pattern desired.

Fill out this coupon and send it to COLMAN'S RURAL WORLD, 716 Lucas Ave., St. Louis, Mo.:

Pattern No. Size. Years

Bust. in. Waist. in.

Name

Address



Horseman

THE OLD HORSE'S MOAN.

Master, it was long ago you rode me;
Master, you were careful of me
then;
Never was there any one bestrode me
Equal to my master among men.
When we flew the hedge and ditch to-
gether;
"Good lass!" how it made me
prick my ear!
Horn and hound, bright steel and
polished leather,
Long ago—if you but saw me here!

Pitiless wind and heaving surge,
A fevered foot and a running sore,
The siren's shriek for a funeral dirge,
And a hobble to death on the fu-
ther shore.

Master, you were saddened when we
parted,
Begged of my new master to be
kind;
Divers owners since and divers-heart-
ed,
Leave me old and weary, lame and
blind.

Voices in the tempest passing over:
"Good lass!" I can scarcely turn
my head.

Oats and deep-straw stall and rack
of clover,
Long ago, and oh that I were dead.

Piteous fate, too long to live,
Piteous end for a friend of yore!
Was it too much of a boon to give
A merciful death on the nearer
shore?

—Unidentified.

The report of the death of Billy
Burk, 2:03½, was grossly exaggerat-
ed.

Lord Brussels is the first 2:10 trot-
ter of the year with a record of
2:09½.

One hundred and thirty-six foals
have been named in the Iowa State
Fair Futurity No. 1.

Five thousand interested horse lov-
ers watched the races the second day
of the meeting at Jefferson, Iowa.

A class for runners, distance one
mile, purse \$100, has been added to
the speed programs of the Nebraska
Speed Circuit.

The famous old black gelding,
Wentworth, 2:04½, though 20 years
old, is still racing over in England.
His record was taken at Columbus,
Ohio, in 1905.

Look up the list of open classes an-
nounced in this issue by the Arizona
State Fair people. It is a good one,
purses all \$2,000, and governing con-
ditions exceedingly liberal.

The Geers' stable of trotters, num-
bering 21 head, is now quartered at
the North Randall track for the finish-
ing touches preparatory to the open-
ing of the Grand Circuit.

N. Bartholomew, Des Moines, Iowa,
patronized the Iowa State Fair Futur-
ity No. 1 to the extent of naming 16
foals, 13 of them by his stallion, Al-
bigen, 2:18, and two by Peter Wat-
son.

A horse called Cream Puff started
at the Jefferson, Iowa, meeting and
lasted one heat only. It might be
wise to change the name, for the
cream puff has never enjoyed much
of a reputation as a stayer.

The very promising young trotter,
Fay Cord, sold last fall to Mr. Karst,
of St. Louis, by the Crawford Bros.,
of this city, won another matinee
event last week, about her third for
the season, best time 2:36.

The Tama County, Iowa, Fair will
be held at Toledo, dates September
22d-25th. Eight classes for harness
horses are announced, purses \$200
and \$300. Premiums for live stock in
all departments have been practically
doubled, and the management is
earnest in the endeavor to make the

fair of 1914 the biggest and best of
any yet given in that county.

The speed sire, Twelfth Night, has
not as yet a very lengthy list of per-
formers, but they average pretty high.
The Year Book credits him with five
pacers, one of which is Knight On-
wardo, 2:04½, and another Knight of
Strathmore, 2:05½. Knight On-
wardo's dam is by J. J. Audubon, and
by the way, Twelfth Night's dam is by
the same. Knight of Strathmore's
dam is by Strathmore.

C. E. Crawley, Weir, Kan., has two
horses, a trotter and a pacer, in the
stable of trainer Connors, at West
Mineral. The trotter is Harry K., six
years old, and up to miles in 2:24 in
his work. The pacer is Billy the Kid,
four years old, record of 2:23½, taken
last year. He has worked in 2:18.
Connors has a good trotting mare of
his own that he is schooling and sev-
eral owned by local parties.

CARE OF HORSES IN HOT WEATHER.

Precautions to Insure Health and Comfort.

It is of the highest importance that
we exercise every care to provide
health, comfort and full working ca-
pacity of every horse on the farm dur-
ing hot weather. The suffering which
the extreme heat brings upon horses
is not considered by many drivers of
farm teams. Many fatalities are
brought about from heat exhaustion,
although in most instances some other
cause is assigned for the death of
the animals.

As a general thing it will be not-
iced that the horse which most quick-
ly becomes a victim of heat exhaus-
tion is one that has not been given
the proper care and attention. He
is in a bloodless, debilitated condi-
tion as a result of poor nutrition and
the surroundings incident to a badly
ventilated and filthy stable, or else
through overfeeding and a lack of
proper regular work he is in a state
of obesity, with flabby muscles, im-
paired circulation and excretory
organs which are not sufficiently ac-
tive, says Indiana Farmer.

If a work horse is to withstand the
effects of hot weather, he must be
provided with a clean, well-ventilated
stable. The water he drinks must be
pure and cool and supplied at frequent
intervals. To keep his body cool, a
horse naturally sweats profusely
while at work in hot weather, and
this means that much of the water he
drinks leaves his body through the
skin. He must drink a large amount
of water to keep up the supply. He
should be given a drink at this time as
much as his driver, and can finish the
half-day with much less fatigue and
discomfort.

Feed for Working Horses.

The feed for the horses should be
nutritious and of a cooling nature, and
their skin should be kept in a healthy
condition and the pores kept open by
being groomed. Giving them a nice
bran mash twice a week will assist
in keeping their system cool. When
not at work, a run in pasture will do
them a lot of good.

When the weather is very hot I
allow my work teams an hour and a
half or two hours for dinner, and do
not feed them until they have cooled
off somewhat. I also take the har-
ness off during the noon hour. It pays
to do this. When the animals are
working hard I feed very lightly of
hay at noon, and do not feed green
grass that has been cut and allowed
to sweat in heaps.

Each horse has his respective col-
lar, which is properly fitted. Collars
that fit too tightly are an aggravating
cause of heat exhaustion. I am care-
ful to keep the collars clean. A little
water and a few moments of time
when the collar is removed, and the
accumulations of dust and sweat are
still soft, and the task is done. This
is also a great help for preventing
sore necks and shoulders. I also
wash off the necks and shoulders of
the horses every evening after remov-
ing the harness. Cold water thrown
on with the hand is better than using
a sponge. This helps to prevent sore

necks and shoulders, and the animals
enjoy it as much as the driver enjoys
washing his face before eating.

A sunshade for the poll or crown
of the head will add immensely to the
comfort of the horses if it is arranged
so that the air will circulate beneath
it. It is the continuous work while
exposed to the direct rays of the hot
sun that leads to heat exhaustion,
therefore short rests should be al-
lowed at frequent intervals in a
shady place, if possible.

Treatment for Heat Exhaustion.

The above suggestions if followed
fairly closely will lessen the danger
of heat exhaustion, but in extremely
hot weather, when the work on the
farm is pressing, a case may occur,
and every driver should know what
to do under such circumstances.
When a horse begins to lag, droops
his head, pants hard or ceases to per-
spire, he should be stopped at once,
for if kept going he will surely go
down, perhaps drop dead. As soon as
he shows himself to be suffering from
heat exhaustion, unhitch him and re-
move the harness. Spray him along
the back with ice-cold water and ap-
ply it freely to the crown of the head
with a hose or a sponge. Let him
stand out of doors in a cool, shady
place, and with such treatment a re-
covery will usually come quickly.

I believe too many of us give little
heed to the increased tax on the pow-
ers of our horses brought on by hot
weather, and it frequently happens
that we pay the penalty in the loss of
a good horse, a loss that is not to be
considered lightly in these days when
good horses cost so much money, and
the loss comes doubly hard, occurring,
as it does, at a season when work is
pressing and the time can ill be
spared to look for another.

CRIMSON CLOVER BALLS.

It has been found that there is a
danger in the use of the overripe
crimson clover, especially with horses,
that should be carefully guarded
against. The small hairs in the heads
of the clover are so constructed,
when the plant has passed the flower-
ing stage, that they collect and form
large, round impervious balls in the
intestines of horses, and many cases
have been reported in which these
have caused the death of animals.

A circular of the United States De-
partment of Agriculture states that,
when the balls have once developed
to such a size that they can not pass
through the intestine, no practical
remedy can be suggested. The pre-
vention of the difficulty is in most
cases easy. The hairs of crimson
clover do not become stiff until the
plant has passed the flowering stage
and begun to ripen.

It should be made a rule, there-
fore, never to feed crimson clover
after the crop has ceased flowering,
and especially never to follow the
pernicious practice of feeding stock
with the straw of crimson clover
raised and threshed as a seed crop.
By guarding against improper meth-
ods of feeding, there is no reason why
crimson clover should not continue
to maintain its well-merited reputa-
tion and increase in use as a forage
plant and green manure.

HEAVY-HARNESS HORSES AND SPEED.

"Harness horses"—which means
horses for pleasure in so-called heavy
leather—at the western horse shows
are suffering from several abuses. The
editor of this journal, having judged
them at a recent show in Ohio, had
occasion to observe at close range
a number of things that should be
corrected. First of all, the horses are
driven too fast. The "craze for
speed," which has waxed into an epi-
demic since the advent of the auto-
mobile, seems to have affected the
drivers of horses. This is a grave mis-
take. The animal can never compete
with the machine on that line. Again,
the horse when driven too fast loses
his beauty of appearance, by stretch-
ing his neck and sprawling his legs;
some, of course, being less defective
than others, but all being open to
criticism. In a gig class or a runa-
bout class—not to mention the light-
harness roadster class where, by the
way, a paradox is that speed is not
required—horses should show a fair

amount of pace; but another paradox
is found here also in that excessive
knee action is expected, or at least
tolerated. Heavy-harness horses
should show quality, conformation,
style and action at a "park gait." One
of these days the parks, or at least a
part of them, will be restricted to the
driving of pleasure horses and speed-
way performances will not be permit-
ted, thereby indicating the utility of
speeding in the show ring. Of course,
a certain amount of dash is necessary,
but this must be in keeping with col-
lected form and not the speed exhib-
ited which throws form to the winds.
Another reprehensible practice is
that of letting horses' toes grow too
long. This is a dealers' trick to give
their commodities extra high knee
action. It is not a wise policy on the
part of the horse owner, as unsound
feet and strained tendons are sure to
result and, furthermore, in the show
ring, it is weighed against him by the
judge who is at all discriminating.
At the show mentioned, several horses
pulled their shoes, and an account of
the length of toes also tore off a
large part of the hoof, exposing the
inner laminae or "quick," which was
a painful sight and a cruelty to be
deplored.—Rider and Driver.

A Good Position For You

In business, civil service, com-
mercial teaching, or a secretarialship
when you graduate from
Gem City Business College
Est. 1870, Quincy, Ill.
America's Greatest Commercial School
Write today for handsomely il-
lustrated year book describing all
courses. Address:
D. L. Musselman, Pres.
Lock Box 114 Quincy, Ill.



\$2 and You Keep this Superb Typewriter

Think of it! Only \$2.00 on this great
offer and we ship this marvelous, visible
typewriter direct from the factory to you
without any jobber's, dealer's or middle-
men's profits of any kind. We allow full
10 days free trial Use it all you want
to. Try it for speed, durability, all around
excellency. Notice its exclusive pat-
ented features, its new line space reg-
ulator, bronze carrying bearings, patent
eraser plate, patented envelope addressing
plate, self interchangeable type reels, printing 90 let-
ters and characters—then, if you don't want it,
send it back at our expense. If you find it the
greatest bargain you have ever seen or heard
of anywhere and decide that you want to keep
it, you can make settlement on the easiest
monthly payments.

FREE Use for 10 Days

That you may test the excellent qualities
of this typewriter, we will place one in
your home or office for ten days free use. Don't
pay the enormous profits asked by the local
dealers. Buy direct from us, the manufacturers,
and save from \$50 to \$60 on the purchase of your typewriter.
Every sale is backed by our 10-year, ironclad guarantee.

Easy Payment

Never mind the money. Our low, whole-
sale price and easy payment terms are so
liberal that you never think of the money. We
want you to see for yourself that "The Chicago"
is equal to any other typewriter that costs more
than twice its price. It is the only typewriter good
enough to put out on a 10-year, ironclad guarantee and
easy payment plan, such as we offer you here.

Limited Offer

To all who write promptly, we will in-
clude free, one of our handsome leather-
ette carrying cases with fine brass lock and
trimmings. Just send your name and address
for full particulars of this special, limited, wholesale
offer and it will be sent to you postpaid free. Write
today—now! Address

• **GALESBURG WRITING MACHINE CO.**
Department 18 **GALESBURG, ILL.**

CASH INVESTMENT OF THE RAILWAYS DURING SIX YEARS.

During the six fiscal years, 1908 to 1913, inclusive, the steam railways of the United States of Class I invested in their road and equipment cash to the amount of \$4,010,385,303. Railways of Class I, so designated by the Interstate Commerce Commission, are those with annual operating revenues of over \$1,000,000. They include about 90 per cent of the mileage, receive more than 96 per cent of the revenues, and handle more than 98 per cent of the traffic.

This cash investment of the operating railways of Class I of the Eastern District during six years was greater than the amount of capital securities issued by them during this period, and was 19.9 per cent of the aggregate of their capital securities outstanding June 30, 1913; of the railways of the same class of the Southern District it was 21.1 per cent, and of the railways of the same class of the Western District it was 23.2 per cent of the aggregate of their capital securities outstanding June 30, 1913. That is, the cash actually expended by these railways during the last six years upon their properties used in transportation amounts to more than one-fifth of their total capitalization at the close of the last fiscal year. This is at the rate of \$668,397,551 per year.

These figures are obtained through a compilation made by the Bureau of Railway Economics from the reports of the railways to the Interstate Commerce Commission, and have not heretofore been collated.

SOURCE OF FERTILIZERS.

The plant and animal world of millions of years ago was a vastly important contributor to the prosperity, indeed almost to the very existence, of the present-day generations of the human family. The resulting deposits of coal and phosphate are perhaps the two best examples, the formation of coal from luxuriant tree growths of the carboniferous age and later periods, and the formation of phosphate deposits from remains of prehistoric animals, perhaps equally long ago.

All the coal beds of the world are composed of the remains of a vegetation, much of it more dense and rank of growth than the most impenetrable tropical tangle of today, and however useless may seem these prehistoric jungles, peopled with the monstrous animals and reptiles of the time, when considered from their coal-making aspect, their tremendous importance to humanity is at once recognized.

Scarcely less important, if not, indeed, it may be contended, more important to man, were the billions upon billions of antediluvian animals, ranging from the tiniest of sea inhabitants to the huge sharks of the primal ocean, shown by their fossil teeth to have attained a length of 100 or more feet, whose remains later became converted into phosphate rock, containing the world's principal supply of phosphorus.

SUMMER SPRAY FOR APPLE WORM.

Many fruit growers spray their trees carefully just after the blossoms fall in an attempt to control the apple worm. There is no question but that this is one of the most important sprays of the year in combating this worm. However, suggests R. B. Cruickshank of the College of Agriculture, Ohio State University, it should be supplemented by at least one spray in the summer. The codling moth which is the parent or adult of the apple worm has two generations in Ohio. The second brood makes its appearance about the first week in July. These worms do an immense amount of injury and should be fought. Arsenate of lead used at the rate of about three pounds to 50 gallons of water or Bordeaux mixture is the material used for this pest. It will aid in stopping the ravages of the curculio and the various caterpillars which are bothersome in July. Where bitter rot or Arkansas Blotch is present, Bordeaux mixture spray should be used, the two being applied at the same time.

FREE

33 PIECE DINNER SET AND 41 EXTRA PRESENTS

74 ARTICLES ABSOLUTELY FREE



I Want to Send You This Dinner Set

Our plan for distributing these dinner sets is very, very easy. You don't have to send us a penny of your money, and the little kindness we ask of you can be done during your spare time, when you are visiting your neighbors.

Here's What You Get.

The complete set of dishes contains 33 pieces.

- 6 Dinner Plates.
- 6 Saucers.
- 6 Cups.
- 6 Butter Dishes.
- 6 Cereal or Fruit Dishes.
- 1 Large Meat Platter.
- 1 Large Cake or Bread Plate.
- 1 Deep Vegetable Dish.

Famous Rose Decoration.

The beautiful, dainty American Beauty Rose decoration is the most popular design ever offered our readers. The bright red roses and the rich green foliage stand out clear and brilliant in the center of each piece, and to make the effect even more charming a rich gold border of gold is run around the edge of each dish, thus giving the complete set an individuality and attractiveness not found in other dinner sets.

Will Last For Years.

The dishes are made of pure white ware, and are for hard usage as well as beauty. They are stronger and bigger than most dishes and with ordinary care will last for years. They will not glaze or get streaky like most dishes and the rose and gold decoration is burnt into each piece and will not wear off.

You could not wish for a more complete set of dishes than this—33 pieces.

Made by a Famous Pottery.

Any woman will be proud of our famous American Beauty Rose set which is complete and beautiful. They are for every-day usage as well as for Sundays, and are the product of the famous Owen China Company, of Minerva, Ohio. We guarantee them to be genuine Owen Chinaware.

OUR EASY OFFER

The coupon starts everything. Sign it and we will send you a large illustration in colors, showing this beautiful Dinner Set with its handsome decorations of red, green and gold.

We will also send you a sample needle case, containing 100 different needles for every purpose, and 15 darners, bodkins and large needles—a total of 115 needles.

Our Dish Plan Is So Very Easy.

When you get this handsome needle case I want you to show it to 16 of your neighbors and friends and get them to hand you 25 cents each in connection with a special offer I will tell you about when I send you your needle case. When you tell them about our great offer they will thank you for the opportunity to help you. Each person who hands you 25 cents is entitled to a complete case of these famous needles. I will send the needle cases to you so you can hand them to your friends when you tell them about our offer. In addition to the needle case each person also gets a special subscription to our big farm paper.

You Will Be Surprised.

You will be surprised how very, very easy it is to get this set of dishes. No previous experience is necessary. When you get your dinner set you will be delighted and all your friends will envy you.

It is so very easy to get this set of dishes that many of our readers earn two, three and even more sets, and sell the extra sets to their friends at a big profit. Now, if you haven't already signed the coupon below, do so before you forget about it.

Sign the coupon—it starts everything.

41 EXTRA ARTICLES FREE

Our plan is full of SURPRISES and DELIGHTS for those of our friends who are willing to lend a helping hand at spare times.

The very first letter you get from us will surprise you before you open it. It will also delight you by telling all about the big 40 piece post card collection which we want to give you in addition to the dishes. We give you the 40 post cards for being prompt.

These beautiful post cards will not only please you—but they are so rare and attractive and printed in such a gorgeous array of colors that you will be delightfully surprised.

Another Present for Promptness.

And still, THAT is not all. One of the prettiest surprises of all is kept a secret until the day you get the dishes and find a pretty present that you know nothing about.

Isn't this a fascinating idea?

And what makes it more so is that we have something nice for everyone of your friends and neighbors, too. We'll tell you ALL about it as soon as we receive the coupon with your name on it.

The coupon starts the whole thing—Sign it before you forget it.

Mail This Coupon Today

Colman's Rural World,
St. Louis, Mo.

I want to get a 33 piece dinner set and the 41 extra gifts. Send me the sample needle case, picture of the dishes in color, and tell me all about your big offer.

Name

P. O.

St. F. D. State

From the Producer To the Consumer

CONSUMERS' STORES.

Just as soon as there are 100 of these stores in operation a convention will be called of representatives from every store, for the purpose of forming an International American co-operative national head and then these 100 stores and others as they are formed will be linked together for the purpose of conducting an international American co-operative association with retail, wholesale and manufacturing departments. VIRGIL WIRT.

P. S. Equity Union Locals get in connection with these stores as they are formed.

To Organized Labor in Illinois—Greeting:

In response to the numerous inquiries for information on the subject, and desiring to be as helpful as possible in the premises, we are prompted to send out this circular, dealing with the matter of establishing co-operative stores among the workers everywhere in our state at this time, also please find under separate cover a copy of the by-laws governing one of the most successful institutions of that kind that is in our state at the present time.

Co-operative stores were first started by the workers for the purpose of reducing the cost of living, which would of course enable them to purchase more or larger quantities for the same amount of money, and in effect be to them equal to an advance in wages, since then, however, it has resulted in a better living as well, not only in the sense that it gave them more of the things they need in every day life, but where it is thoroughly established they have gone into the manufacturing as well as the wholesale phases of it, and it has resulted in creating a much better quality of everything they use, for as they are making these articles to consume themselves, it stands to reason that in food stuffs they will make the most pure and wholesome article possible, and in clothing, furniture, tools, implements, etc., they make them the most durable as well as of the best quality, and as a result of their making better and higher standards of all kinds of goods, the private manufacturer is compelled to do likewise to hold his business.

It has resulted also in giving the workers a clear insight into the methods of so-called big and little business, giving them valuable first hand information which they have been able to use to their decided advantage in numerous different ways. It has given them an opportunity to develop within themselves the capacity to operate and manage successfully every phase of commercial and industrial business, and has a tremendous educational influence for the good of the common people in every way.

In so far as it is firmly established, it has given the workers a commercial and financial standing, power and influence which has militated for their good in all of their industrial and political disputes, and at the same time weakened the power and influence of their enemies in inverse ratio from the same angle, and it is to be hoped that the working people of Illinois and of every other state in our nation will utilize to the fullest extent his valuable institution which not only brings immediate blessings to them when properly handled, but which gives them greater hopes for the future as well as a substantial addition to their fighting strength for offensive as well as defensive purposes.

If there is a desire in your locality to start a store, the best thing to do is to call a meeting of all who are interested to discuss the matter and devise ways and means for beginning it. Select good, substantial, reliable men to solicit subscriptions who are interested enough to do that work free of charge, and do not collect any money until you have selected a good honest man to act as treasurer for that purpose and have him bonded properly.

No one should be allowed more than one vote, no matter how many shares

of stock they own.

Ten (\$10) dollars a share and no one to be allowed to own more than 10 shares will assure enough money for good working capital purposes.

Not more than 6 per cent interest should be paid on shares or stock capital.

To prevent stock from getting into the hands of enemies, no transfer of stock should be allowed without the consent of the board of directors.

It is better not to do any credit business at all if possible to avoid it, but not more than half their stock ownership should be allowed to anyone, under any circumstances, and then interest should not be paid on the stock at all when that is done.

Do not cut prices, the higher the other stores charge, the larger dividends the co-operative will pay, if they do not cut the prices, you members do not lose anything anyway, as they get it back in dividends, it shows up the other stores and advertises the co-operative stores favorably.

If you cut prices, you only invite the vicious opposition of the private concerns, but do not benefit your own customers or members a particle, as all excess prices paid by them they get back in dividends, the only good that anybody gets through the co-operative cutting prices is the reduction in



FERTILIZING GETS RESULTS.

prices that the individual who trades with the private concern gets.

(Do not cut prices.)

The main essentials to successful co-operation are:

First. Honest management.

Second. Loyal patronage.

The degree of competency in the management will affect the degree of success, but absolute honesty is the most important necessity.

When dealing with a private merchant, generally a worker is in debt from two weeks to a month, and in the event of a strike he owes his last pay for his grocery bill, and if he pays it, he has not got a cent to stand the strike on, and if he does not pay that bill the store shuts off his credit.

When trading in the co-operative store the worker is generally paid up, got his last pay to strike on, and nearly always has some reserve funds lying as unused dividends.

It really means that the average worker is in a position to strike a full month longer for his rights when it is necessary where he trades in a co-operative store than he can when trading with a private concern, and if he does not need to strike, it means that he and his family have just that much more of the necessities or the good things in life.

It places the opportunity in our own hands to buy from the producers' associations (or farmers' unions) direct, also secure every other kind of article which is union made, thereby enabling us to use an influence directly which will have the effect of building up and strengthening practically every union in the country.

Do not throw down any necessary safeguard in order to make it easy to get membership. Be careful to prevent enemies or spotters or men whose honesty has not been pretty thoroughly established by their past record, from getting into position of power and influence.

Have every officer that handles

finance bonded.

Better have only those for members who can be depended upon to stick and to meet intelligently the opposition of its foes, than to have a large membership to begin with that knows nothing about the movement, and who are easily discouraged or who might be easily influenced to make fatal mistakes.

Don't be hasty in starting a store. Take plenty of time.

Be sure you are on a solid bed rock basis before you start.

But be sure to start one as soon as you can get on that basis.

Yours truly,

J. H. WALKER, President.

J. F. MORRIS, Secretary.

Illinois has now seven co-operative consumers' stores, the largest, strongest and most successful at Gillespie, Ills., Macoupin county. V. I. WIRT.

FARMERS ADVISED TO HOLD WHEAT.

Kansas farmers will do well to hold on their farms as much wheat as their circumstances reasonably warrant. This is the statement of W. M. Jardine, dean of agriculture in the Kansas State Agricultural College. The conclusion was reached at a conference of grain men, railroad officials, elevator men, and others.

The present price, which is from 60 to 65 cents, is low, and is brought about, says Dean Jardine, largely because farmers are rushing their wheat to market faster than it can be taken

care of, thus causing congestion at terminal points. The world's wheat crop is not unusually large, and there will be more wheat exported from the United States than in several years past, which is not likely to result in a low price for the coming year. The lowest price, according to Dean Jardine, will probably be reached in the next six weeks, and farmers will be observing good business methods in holding their grain for a higher price.

A serious car shortage, and consequent congestion in marketing the wheat crop can be avoided, says Professor Jardine, only by close co-operation among all persons interested, including the farmer. Arrangements are being made to have local railroad agents furnished with information as to inability of wharf, steamship, and elevator companies to dispose promptly of grain entering gulf ports. This will get information to local shippers.

DRY FARMING.

Dry farming experts from eight states in the Great plains region will gather at Hays, Kansas, July 8 to 10, for the ninth annual meeting of the Great Plains Co-operative Experimental Association. Represented at the meeting will be the United States Department of Agriculture and colleges and experiment stations in Kansas, Nebraska, North Dakota, South Dakota, Montana, Colorado, Texas, and New Mexico.

Various experimental problems that have absorbed the attention of experts will be discussed at the meeting. The relative water requirements of crops, live stock on the dry-farm, and various points in connection with the growing of different crops under Great Plains conditions, are among the subjects that will be considered.

The speakers from Kansas will be George Helder, superintendent of the Fort Hays branch experiment station; W. M. Jardine, dean of agriculture, W.

GET THIS FREE BOOK

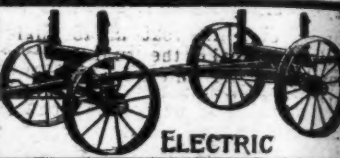
If you need a wagon, be sure to get this book before you buy. It explains true wagon economy. Electric Handy Wagons will wear a lifetime, and the low steel wheels save your back in pitching and lifting. Guaranteed thirty to fifty per cent lighter draft, and the wide wheels will not rut roads or fields. Much cheaper than other wagons on the market and never need repairs. Write for our book today.

ELECTRIC
LOW DOWN
WAGONS
AND
WHEELS

DON'T DISCARD YOUR OLD WAGON

We furnish electric steel wheels to fit any make of wagon. Turn your old farm wagon into a steel wheel, low down truck. Don't be bothered with old wooden wheels. You can save money by using electric steel wheels. Get our illustrated book at once.

ELECTRIC WHEEL COMPANY
Quincy, Illinois



STANDARD AMERICAN EVERYWHERE Well Drilling Machines

Tested, Proved Reliable by forty-four years' use in nearly all parts of the world. Many men earn big incomes with some one of our 30 styles and sizes. They use any power. Made for drilling earth, rock and for mineral prospecting. Large catalog No. 120, FREE. THE AMERICAN WELL WORKS. General Office and Works: AURORA, ILL. Chicago Office: First National Bank Building

A. Cochel, professor of animal husbandry, L. E. Call, professor of agronomy, Albert Dickens, professor of horticulture, in the Kansas State Agricultural College, and J. G. Lill of Garden City, Dean E. A. Burnett of Lincoln, Nebraska; Director Thomas Cooper of Fargo, N. Dak.; Doctors L. J. Briggs and H. L. Shantz of the United States Department of Agriculture; Prof. Albert Keyser of the Colorado Agricultural College, and Prof. J. E. Mundell of Tucuman, N. M., are among the prominent men from outside the state who will take part in the program.

DRAGGING EARTH ROADS.

Simplest and Cheapest Way to Maintain Certain Highroads in Good Condition.

The road drag is the simplest and least expensive contrivance yet devised for maintaining earth roads, according to the experts in the U. S. Department of Agriculture, who are co-operating with state and county authorities in work for better roads.

Properly used, the drag gives the needed crown to the road, smooths out ruts and other irregularities, spreads out puddles of water, thereby accelerating the drying of the road, and makes the surface more or less impervious to water by smearing over the so-called pores in the earthy material. The cost of operation depends, of course, upon local conditions and the thoroughness with which the work is done. It is safe to say, however, that it is less expensive than any other efficient system of upkeep.

Farmers' Bulletin No. 597, of the Department of Agriculture, discusses under the title of "The Road Drag and How It Is Used," the best methods of maintaining earth roads in good condition by this simple device. In this bulletin, which has just been published, the department points out that of more than 2,000,000 miles of public roads in the United States, only about 200,000 miles have been given a hard surface. It is true, of course, that a large part of the remaining mileage consists of roads that are entirely unimproved, and that on roads of this class the drag is practically useless. There is a much larger mileage, however, that has been partially improved,

and it is on roads of this character—roads that have been crowned or drained, but have not a hard surface—that the use of the drag is advocated.

In its simplest form, the road drag consists of an ordinary log split in half and the two halves connected like the uprights of a ladder by means of cross sticks or rungs set in. The log should be about seven or eight inches in diameter, and from six to eight feet in length. It is better to have it of well-seasoned, hard, rough wood. The two semi-cylindrical halves of the log form the runners of the drag, and are usually spaced from 30 to 36 inches apart. The front runner is always placed with the split surface of the wood facing forward, but the rear runner sometimes has its rounded face in front. This is done in order to increase the smearing action of the drag as it passes over the surface of the road.

The two runners are not placed directly behind each other, but are "offset" as it is called, from 12 to 16 inches. This is done because the drag is drawn over the road at an angle sufficient to make the runners free themselves of the material which they scrape. The amount of this angle or skew depends, of course, upon the condition of the road. By offsetting the runners, it is possible to make their ends follow approximately the same line on the road, which they would not do if they were set directly behind each other and the drag drawn at an angle with the road.

In order to provide standing room for the man, it is usual to nail two boards down upon the rungs parallel to the runners. Standing upon these, a skillful driver will bear his weight in such a way as to aid materially in the successful operation of the drag.

The drag is drawn by a chain which should be about eight feet long. This can be fastened by eye bolts to each end of the front runner, or one end of the chain can pass through a hole at the discharge end of the front runner, and the other end be looped over the rung at the cutting end of the runner. It is important that the hitching link should be so designed that its position can be changed readily. It is also desirable to provide a metal cutting edge for the front runner. This can be made from a strip of iron or steel, and old wagon tires have frequently proved satisfactory.

The cost of such a drag varies from \$2.00 to perhaps \$10.00 or \$12.00. This practically insignificant outlay will secure an implement that will be of great service to the community for at least three or four years. The fact cannot be overlooked, however, that skill in the use of the drag is indispensable.

The angle that the runners make with the center line of the road, the skew angle as it might be called, is an important factor. For example, if the dragging is done to increase the crown of the road, the drag should be sufficiently skewed to discharge all material as rapidly as it is collected on the runners. On the other hand, the conditions may be such that it is desirable to carry along this material in order to deposit it where there are depressions in the road's surface. An intelligent operator will soon learn many ways of controlling the action of the drag. The length of the hitching chain, the disposition of the operator's weight, the time when the dragging is done, all these exert a marked influence upon the results.

As to the time for dragging, a safe rule to follow is to drag the road when the material composing the surface contains sufficient moisture to compact readily, but is not sufficiently wet for traffic to produce mud.

Since the weather plays so important a part in the matter, it is not usually possible to arrange continuous employment for teams on the road. It is therefore desirable, whenever possible, to have the dragging done by persons interested in the road, who will do it in the intervals of other occupations.

MISSOURI CROP REPORT.

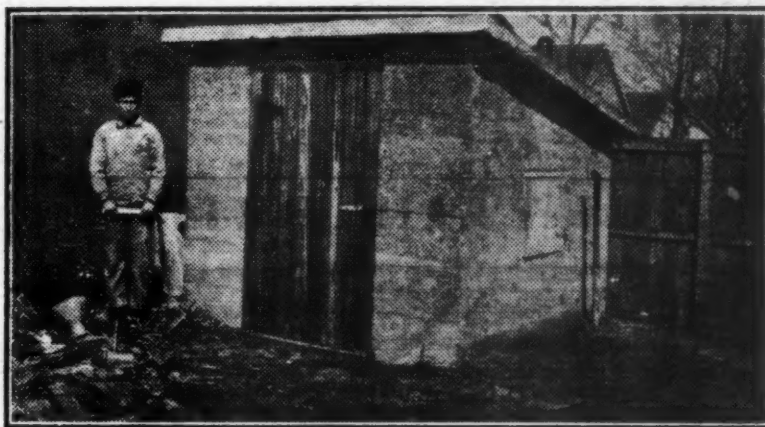
The following report showing Missouri crop conditions on July 1 is issued from the office of the Secretary of the Missouri State Board of Agriculture at Columbia.

The last day of June brought to Missouri a much-needed rain, putting

smiles on the faces of our people and promising "simoleons" for our purses. As a result, our hopes have gone up like a skyrocket, and Independence day becomes also a day of thanksgiving. The close of the month was in pleasing contrast to the long siege of heat and drouth to which most of the state had been subjected. On June 30 and the night following 1.98 inches of rain fell in Columbia, while the precipitation was heavier at some points. Practically the entire state, except parts of the southeastern section, received rain—more than for the preceding twenty-nine days of June.

Dividing the state by a diagonal line from Jasper county in the southwest to Lewis county in the northeast, the territory of sufficient or fair rainfall for the month lay to the north and west of this line, while to the south and east was a territory generally deficient in moisture. One dry district seemed to center in the Mississippi river border counties, south from Lewis county; another in southeast Missouri, and still another in the counties bordering the Arkansas line, especially those about midway east to west. In fact, except in the northwest section (and here there were areas of limited rainfall) and in a few counties along the state line south from Kansas City, rain has been needed. The exception was where local showers were ample.

During the early part of June there was much complaint of crop destruction by insect pests. Happily, except for occasional and scattered reports



A CONCRETE ENGINE HOUSE.

as to chinch bugs, few complaints of this kind are now coming in.

Unfortunately, the reports on which the following figures are based were forwarded before the rain of June 30. For this reason they may seem less optimistic than present conditions justify:

Corn—Based upon reports received before the rain of June 30, the condition of corn for the state is 81. By sections it is: Northeast, 82; Northwest, 95; Central, 79; Southwest, 80; Southeast, 68. Corn has been well cultivated, is generally thrifty and of excellent color, and with a favorable season to follow a satisfactory yield should result. The acreage is estimated at 98.6 per cent of last year's crop grown on 7,537,270 acres, but final figures may show more.

Wheat—Wheat harvest was one of the earliest in the history of the state. Less than one per cent of the wheat remains to be cut. This is in the Northeast and Northwest sections. Of 2,156,637 acres seeded last fall only 1.5 per cent was abandoned. Threshing is under way in all sections of the state. The preliminary estimate as to yield is 17.1 bushels for the state as compared with 16.1 bushels, last year's preliminary. By sections, preliminary estimate as to yield is: Northeast, 16.6; Northwest, 20; Central, 16.3; Southwest, 17.5; Southeast, 15.3. Some actual threshing returns are disappointing, especially in Southeastern section. A yield of about 35,000,000 bushels is indicated. The prices averages 10 cents below last year's. Much wheat will be fed instead of sold. Where threshing cannot be done soon stacking is advised.

Oats—The condition of oats, for the state, is 56, or by sections: Northeast, 44; Northwest, 70; Central, 47; Southwest, 77; Southeast, 40. Of the original acreage it is estimated that

69 per cent has been or will be harvested.

Other Crops—Condition of other crops: Timothy, 47; clover, 56; alfalfa, 84; pastures, 49; cotton, 88; flax, 80; tobacco, 75; broomcorn, 80; potatoes, 56; prairie hay, 83. Crop acreage estimates are: Timothy, 83; clover, 74; alfalfa, 110; cotton, 105; flax, 95; tobacco, 96; broomcorn, 84; potatoes, 101; prairie hay, 96; rye, 103; barley, 99; cowpeas, 84. Hay yields, per cutting, are estimated:

Timothy, 0.54 tons; clover, 0.72; alfalfa, 1.1. Quality of timothy is 75; clover, 78; alfalfa, 95. Apple crop is placed at 57; peaches, 62.

LATE SOWING OF WINTER WHEAT TO COMBAT HESSIAN FLY.

The seeding of winter wheat should be delayed as much as possible to combat the Hessian fly, whenever this pest is present. Throughout the Eastern United States, where winter wheat is generally grown, this fly sometimes causes damage amounting to over a million dollars in one year. Present indications are that the damage done by the pest this year will be considerable. Co-operative late sowing by all the wheat growers in the community accompanied by systematic destruction of stubble and other breeding places for the fly seems to be the best means to reduce its devastation.

Wheat should, however, be sown early enough to allow the plants to become well established before winter sets in, yet not so early as to allow them to become jointed. If the first frost is unusually delayed the wheat grower would better plant even though there is still danger of injury from the fly, for otherwise his losses may be greater from the failure of young, poorly-rooted plants to survive the winter.

The best time for sowing winter wheat is about the first week in September in the latitude of Northern Ohio. In the latitude of Southern Ohio, the last week of September is best. Proceeding still farther south the best date is still later, being about the middle of October for Central Tennessee and Central Oklahoma, and about the first of November for Northern Georgia. In such districts as the Piedmont section of Virginia

FARMERS EQUITY UNION COAL

Blackbrier—Highgrade
Cantine—Semi-Highgrade

From our Illinois mines—Now used by many branches of the Farmers' Equity Union in the different States.

References: Mr. C. O. Drayton, National President Farmers' Equity Union. For prices, freight rates and any desired information, write to us.

LUMAGHI COAL COMPANY

606 Equitable Building,

St. Louis, Mo.

SHIPMENTS ANYWHERE.

Complete BASEBALL Outfit

FREE

It will not cost you one cent to own a fine baseball outfit, including a COMPLETE SUIT, cap, shirt, pants and belt; Chest Protector, heavy wire, padded Black, Champion's Hit or Fielder's Glove, Junior League Ball, Ash Bat, etc. Well made and durable. Just order 20 packages Gold eyed needles, and as the package, send us \$2 when collected, get outfit FREE. Extra present of BASEBALL COVETED if you order now. We trust you and take back all you cannot sell. NATIONAL GIFT COMPANY 973 Church St., Chicago, Ill.

New 1914 Thin Model 32 Watch \$3.75

Beautifully engraved, gold finished double hunting case, high grade American movement, stem wind and stem set. 30 year guarantee with each watch. Long gold finished chain for ladies, fib or vest chain for Gents free.

\$3.75

Let us send to you our new and improved FREE EXAMINATION of your present watch, after you examine it, if you think it is a bargain and equal to any 15 Jewel \$3.75 watch pay the balance and we will send you a NEW HUNTER WATCH CO., DEPT. 752, CHICAGO, ILL.

allowance must be made for elevation. In the northern part of this state the middle of September seems the best date for sowing, while in the southern part, the last week in September is preferable.

The general rule for seeding is that there should be a difference of one day for each 10 miles of difference in latitude and seeding should be approximately one day earlier for each hundred feet of increase in elevation. There is usually, however, a period of several weeks in all the winter wheat area where sowing may take place with about equal results. This period is longer as one proceeds to the southward.

The quantity of seed that should be sown under ordinary conditions in the humid winter wheat area is six pecks per acre. This may be varied according to the size of kernel of the variety used, the condition of the seed bed, the fertility and character of the soil, and the date of seeding. When the grains are small, the seed bed in good condition, the soil rich, warm, and well drained, and the seeding early, five or even four pecks per acre are often sufficient. Where opposite conditions exist, 7, 8 or even 10 pecks may give more profitable results. It is advisable to adhere to these rules with all varieties, regardless of any claims of exceptional tillering ability that may be made.

Other details of a general character regarding "The Culture of Winter Wheat in the Eastern United States" are given in a bulletin of the department bearing that title, (No. 596.) It can be had free by wheat growers on application to the department at Washington, D. C.

George T Swisher, of Provolt, Ore., is busy getting ready for the coast races and among the horses he is handling is Albia, 2:11½, by a son of Altamont; Harry N., 2:20½, a son of Diamond, 2:11½; Halmont, by Hal B., p., 2:04½; Grace N., by Hal B. The above are all pacers and working around 2:20. The trotters in this string are Bonnie June, 2:24½, by Zolock, 2:05½; Halle B., 2:24½, by Hal B.; Pat Duff, by a son of Zombro, and Nelly Mack, by Unimach, a brother to Sterling McKinney, 2:06½.

MANY VALUABLE PRESENTS FREE

In the next three months we want to give away \$10,000 worth of useful and valuable presents to advertise the People's Supply Company. We want at least one person in every town to have one or more of these splendid presents, and we want the good friends and readers of Colman's Rural World to be the first to have their choice. These presents consist of Watches, Rings, Fountain Pens, Locket, Cameras, Suits, etc. Look over the list and carefully read the description of each and see what you prefer. We only have room to show you a few of the many presents you may select from.

Our offer makes it so easy to get one or more of these useful presents that every boy or girl, man or woman reader of Colman's Rural World should sign the coupon below. All we want you to do is distribute 20 of our swell Art and Religious pictures amongst your friends and neighbors at 10 cents each. These beautiful pictures are 12x16 inches in size, and lithographed in many beautiful colors. Nearly everybody you show these pictures to will thank you for the opportunity of getting one or more at 10 cents each. As soon as you have distributed the 20 pictures, send us the \$2.00 you will have collected and we will send you your choice of any one of the presents you select from our big list of premiums.



BRACELET AND RING FREE

BRACELET AND RING

Adjustable to any size wrist and gold plated throughout, and the fancy engraved links alternating with plain polished ones produce a very pleasing effect. Ornamented with elaborate, fine cut, sparkling ruby stone, set in richly chased border. Three-stone gold plated ring given with each bracelet.

Don't send any money. Just fill out the coupon below and mail it to us, and we will send you, by mail, all charges prepaid, the 20 beautiful pictures.

You run no risk as we take back any you do not sell, and send you a present for what you have sold. Fill out the coupon below and mail it today. The coupon starts everything.

YOUR FRIEND AT ST. LOUIS,

People's Supply Co.,
716 Lucas Ave., - - St. Louis, Mo.

NOTICE!

We give you an extra gift of 40 beautiful Post Cards; no two alike, for being prompt. Our plan is full of pleasant surprises.



Ladies' or Gentleman's Watch

A picture (reverse side reproduced) of our American made late model Watch.

American Model, stem-wind and stem set, suitable for a lady, gentleman, boy or girl. Case is embossed with a beautiful and chaste design, and presents a rich and elegant appearance. Attractive easy reading dial, with hour, minute and second hands, and is dust proof.



Gold Filled Ring Set With Three Brilliant Stones

PEARL FOUNTAIN PEN



The barrel is a genuine guaranteed hard rubber; cap is of the same material. The barrel is inlaid with mother of pearl decorations and you can see the beautiful design from the illustration. The inlaid work is held in place by two fancy gold plate bands; pen point is guaranteed 14K solid gold, and in every respect this fountain pen is first class.

Camera Outfit



This Camera outfit includes camera with automatic shutter, plates, developing tins, developer and fixer and full instructions. Will take clear and sharp pictures. Covered with moroccoette.

Vanity Case

Made of rich German Silver which has an extra finish, and is decorated with fancy flower border. This case has a mirror of good quality, and powder puff compartment and places for quarters, dimes and nickels, also a strong catch that will hold cards and bills. Attached to this Vanity Case is a ten-inch chain. Size of case is 3 1/2 x 2 1/2.



BOYS! GET THIS RIFLE FREE!



Will Shoot 350 Times

AUTOMATIC REPEATER
Works Like a WINCHESTER

Without Reloading

Boys—here is the Air Rifle you have always wanted—a real repeater that loads automatically just like a Winchester or a Marlin. Nearly 3 feet long, yet weighs only 2 pounds. Uses B B shot and shoots 350 times without reloading. Will kill, at long range, crows, hawks, and all kinds of small game, such as squirrels, rabbits, etc. Barrel and all working parts made of high-grade steel, handsomely nickel plated; stock of finely-polished black walnut. This splendid Rifle is just what you need for target practice. No powder—no danger—yet it will shoot almost as hard and as far as a regular .22 caliber cartridge rifle. It is the safest and most powerful air rifle ever invented.

Handbag

Made of seal grain with gusseted ends welted, heavy cloth lining, fitted with pockets for mirror, bottle, coin purse, etc. Bag measures 10 1/4 x 8 1/4 inches and is fitted with fancy French gray silver finished frame, has a double strap handle.



CASH COMMISSION

Many of our agents prefer to sell our goods for a cash commission instead of a premium. We allow 40 per cent commission to agents who desire the money instead of the premium. In other words, you keep 80 cents out of every two dollars' worth of goods you sell, and send us the remaining \$1.20. If you find you cannot sell all our goods you will be entitled to a commission on the full amount you do sell.



Mesh Bag

Made of German silver, beautiful oxidized frame, prettily embossed with a handsome floral design. The size of the bag is 3 1/2 x 2 1/2, which makes it neither bulky or too small. Attached to it is a ten-inch chain.

SEND NO MONEY—JUST YOUR NAME.

People's Supply Co.,
716-718 Lucas Ave., St. Louis, Mo.

Gentlemen:—Send me 20 of your high-grade art and religious pictures, which I promise to try and sell for one of your presents. I promise to return all pictures I cannot sell.

Name

R. F. D. Box Street

Post Office State